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Water Resources Data for New Jersey Water Year 1984. Volume 1. Atlantic Slope Basins, Hudson River to Cape May

Geological Survey, Trenton, NJ

May 85

U.S. Department of Commerce
National Technical Information Service
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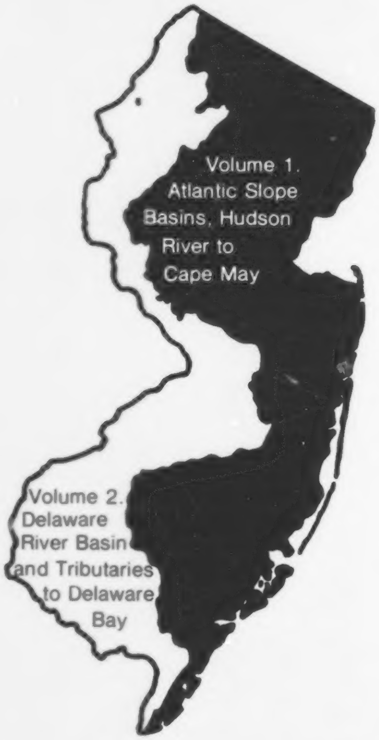
PB86-106101

U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data New Jersey Water Year 1984

Volume 1. Atlantic Slope Basins Hudson River to Cape May


Volume 1.
Atlantic Slope
Basins, Hudson
River to
Cape May
Volume 2.
Delaware
River Basin
and Tributaries
to Delaware
Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-84-1
Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies

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CALENDAR FOR WATER YEAR 1984

1983

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United States Department of the Interior
GEOLOGICAL SURVEY

WATER RESOURCES DIVISION
ROOM 409, FEDERAL BUILDING
402 EAST STATE STREET
TRENTON, NEW JERSEY 08608

I AM PLEASED TO ANNOUNCE THE RELEASE OF OUR ANNUAL REPORT, "WATER RESOURCES DATA FOR NEW JERSEY, WATER YEAR 1984". THIS REPORT WAS PREPARED BY THE U.S. GEOLOGICAL SURVEY, IN COOPERATION WITH THE STATE OF NEW JERSEY AND SEVERAL LOCAL AND FEDERAL GOVERNMENT AGENCIES.

ONCE AGAIN THIS YEAR, THE REPORT IS ISSUED IN TWO VOLUMES: VOLUME 1.--ATLANTIC SLOPE BASINS, HUDSON RIVER TO CAPE MAY; VOLUME 2.--DELAWARE RIVER BASIN AND TRIBUTARIES TO DELAWARE BAY.

THE REPORT CONTAINS RECORDS OF STREAM DISCHARGE AND WATER-QUALITY MEASUREMENTS, ELEVATIONS OF LAKES AND RESERVOIRS, MAJOR WATER-SUPPLY DIVERSIONS, AND TIDAL ELEVATIONS. ALSO INCLUDED ARE RECORDS OF SEDIMENT CONCENTRATIONS AND RECORDS OF GROUND-WATER QUALITY AND GROUND-WATER LEVELS. SPECIAL SECTIONS ARE DEVOTED TO LOW-FLOW AND CREST-STAGE DATA AND SUMMARIES OF TIDAL CREST ELEVATIONS IN THE NEW JERSEY ESTUARIES AND INTRACOASTAL WATERWAYS.

COPIES OF THIS REPORT ARE FOR SALE THROUGH THE NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VIRGINIA 22161. WHEN ORDERING, REFER TO U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-84-1 (FOR VOLUME 1) AND NJ-84-2 (FOR VOLUME 2). FOR FURTHER INFORMATION ON THIS REPORT, OR IF THE ADDRESS ON THE MAILING LABEL HAS CHANGED, OR IF YOU NO LONGER DESIRE TO RECEIVE THIS REPORT, PLEASE CONTACT ME AT THE ABOVE ADDRESS OR TELEPHONE [609] 989-2162.

SINCERELY,

William R. Bauersfeld

WILLIAM R. BAUERSFELD, CHIEF
HYDROLOGIC STUDIES SECTION

U.S. DEPARTMENT OF THE INTERIOR

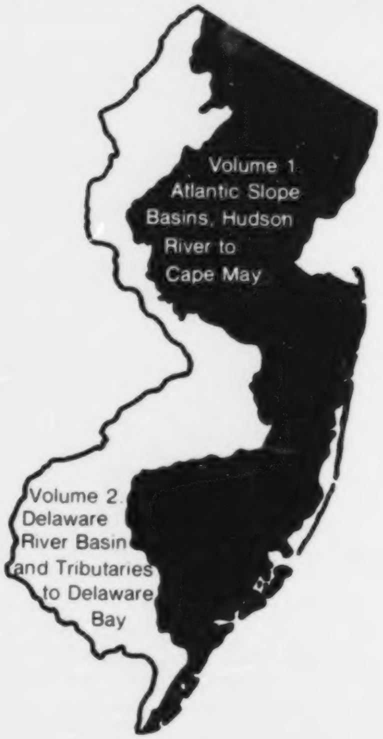
March 3 1849

Water Resources Data New Jersey

Water Year 1984

Volume 1. Atlantic Slope Basins, Hudson River to Cape May

by W.R. Bauersfeld, E.W. Moshinsky, E.A. Pustay, and F.L. Schaefer


Volume 1
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Basins, Hudson
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Cape May
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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-84-1

Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to

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U.S. Geological Survey
Room 409, Federal Building
402 East State Street
Trenton, New Jersey 08608

1985

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New Jersey are contained in 2 volumes:

Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and tributaries to Delaware Bay

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

E. Dorr
R.L. Ulery
M.A. Hardy
R.D. Schopp
W.D. Jones
G.M. Farlekas

S.J. Perry and I.C. Heerwagen word processed the text of the report, and G.L. Simpson drafted the illustrations.

This report was prepared under the general supervision of D.E. Vaupel, District Chief, New Jersey District, and S.P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the State of New Jersey and with other agencies.

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Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies.

16. Abstract (Limit: 200 words)

Water Resources data for the 1984 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume of the report contains discharge records for 79 gaging stations; tide summaries for 1 station; stage and contents for 15 lakes and reservoirs; water quality for 62 surface-water sites and 141 wells; and water levels for 54 observation wells. Also included are data for 41 crest-stage partial-record stations, 17 tidal crest-stage gages, and 39 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the national water data system operated by U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

17. Document Analysis a. Descriptors
*New Jersey, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water Levels, Water Analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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SURFACE WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (e) elevation, gage height or contents, (t) water temperature, (s) sediment]

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INTRODUCTION

Water resources data for the 1984 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contains water discharge at 79 gaging stations; tide summaries for 1 station; stage and contents for 15 lakes and reservoirs; water quality for 62 surface water sites and 141 wells; and water levels for 54 observation wells. Also included are data for 41 crest-stage partial-record stations, 17 tidal crest-stage gages and 39 low-flow partial-record stations. Locations of these sites are shown in figures 5, 6, and 7. Additional water data were collected at various sites not part of the systematic data collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volume 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New Jersey.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in offical Survey reports on a State-boundary basis. These offical Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume of the report is identified as "U.S. Geological Survey Water-Data Report NJ-84-1." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 989-2162.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection, Robert E. Hughey, Commissioner.
  Division of Water Resources, John W. Gaston, Jr., Director.
New Jersey Water Supply Authority, Rocco Ricci, Executive Director.
North Jersey District Water Supply Commission, Dean C. Noll, Chief Engineer.
Passaic Valley Water Commission, W.I. Inhoffer, General Superintendent and Chief Engineer.
County of Bergen, Edward R. Ranuska, Director of Public Works and County Engineer.
County of Camden, Barton Harrison, Chairman of Camden County Planning Board.
County of Morris, James Plante, Chairman of Morris County Municipal Utilities Authority.
County of Somerset, Thomas E. Decker, County Engineer, and Thomas Harris, Administrative Engineer.
Township of West Windsor, Larry Ellery, Chairman of Environmental Commission.
Township of Bridgewater, Cynthia Jacobson, Chairman of Environmental Commission.

Assistance in the form of funds was given by the Corps of Engineers, U.S. Army, in collecting records for 50 surface water stations, and for the collection of sediment records at one stream-sampling station, by the U.S. Environmental Protection Agency for the collection of chemical analyses at four stream-sampling stations, and by the U.S. Army Armament Research and Development Center for the collection of records at two surface-water stations and one water-quality monitoring station. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Assistance was also furnished by the National Weather Service and the National Ocean Survey.

The following organizations aided in collecting records:

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Organizations that supplied data are acknowledged in station descriptions.

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SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow in the 1984 Water Year was excessive throughout the State, ranging from 168 percent of normal in the north to 128 percent of normal in the south. Precipitation during the water year varied greatly within the State, ranging from 164 percent of normal (69.3 inches) in the northeast to 115 percent of normal (48.4 inches) in the southeast. Reservoir content decreased until November, when they all showed a sharp increase; by the end of December almost all reservoirs were spilling. Reservoir contents did not drop below 100 percent of capacity until August and, by the end of the water year, contents were still above normal at 84 percent of capacity. In general, field specific conductance of surface waters was below normal for the period May through September, due primarily to the diluting effect of the above-average precipitation. Water-table levels also were at or above normal for most of the State.

Water year 1984 began with streamflow about normal at all index stations. Subsequently, streamflow steadily increased until, by the end of December, it was 200 percent of normal in the north and 143 percent of normal in the south. Precipitation averaged about 212 percent of normal in December. Major storms occurred on December 13, 22, and 29. On December 13, Little Falls, in the northeastern part of the State, reported 3.6 inches of rain. Flooding was reported in the area of Wayne and Lincoln Park. Streamflow returned to normal in January and February. On March 29, the highest tides since 1962 caused considerable damage to many coastal communities. Precipitation in March, April and May was much above normal, which again caused very high streamflow. An intense storm occurred on April 5, and Essex Fells, near West Orange, reported 6.6 inches of rain in 24 hours. Flooding was reported throughout the northeastern part of the State. New high peaks were recorded at all gaging stations on the Wanaque and Ramapo Rivers, and at Rockaway River upstream from the reservoir at Boonton. Another storm on May 29 and 30 resulted in from 3.5 to 4.5 inches of rainfall in most northern communities. A new high monthly mean discharge for May was recorded at South Branch Raritan River at High Bridge; this exceeds the previous high set in 1947. Heavy precipitation continued through June and July. Most notable was a storm on July 6 and 7 concentrated along the Lamington River in the Raritan River basin where Pottersville reported 9.02 inches of rain; total monthly precipitation at this site was 17.11 inches. New peaks of record were recorded at many gaging stations in the Raritan River basin. For the remainder of the year, streamflow remained high throughout the State.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 204 ft^3/s for the water, which is 168 percent of the 66-year average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 111 ft^3/s for the water year, which is 128 percent of 59-year average. The observed annual mean discharge of the Delaware River at Trenton was 15,740 ft^3/s, which is 135 percent of normal. The Delaware River is highly regulated by reservoirs and diversion. The natural flow at Trenton (adjusted for upstream storage and diversions) was 107 percent of normal for the year. Figures 2 and 3 compare the monthly and annual discharges with past records at these index gaging stations.

Storage in the 13 major water-supply reservoirs in New Jersey increased from 46.8 billion gallons (62 percent of capacity) on October 1, 1983, to 63.5 billion gallons (84 percent of capacity) on September 30, 1984. Storage in Wanaque Reservoir increased from 18.9 billion gallons (67 percent of capacity) on October 1, 1983 to 24.3 billion gallons (87 percent of capacity) on September 1, 1984. Pumped storage in Round Valley Reservoir increased from 40.6 billion gallons (74 percent of capacity) on October 1, 1983, to 47.4 billion gallons (86 percent of capacity) on September 30, 1984.

Monthly mean and minimum specific conductance values at two of the NASQAN (National Stream Quality Accounting Network) sites -- the Maurice River near Norma (southern New Jersey) and the Passaic River at Little Falls (northern New Jersey) -- were lower than those for the previous year for nearly the entire May through September period. This condition prevaled for 3 of the 5 months at the continuous record station -- Delaware River at Trenton.

The water table was at or above normal level throughout most of the State from October 1983 through September 1984. There was a seasonal rise in the water table in most wells from October to a peak in the period March through June, followed by a seasonal decline through September. The level of the water table reflects natural recharge and discharge, and indirectly reflects long-term precipitation trends.

Artesian water levels in wells tapping the heavily stressed confined aquifers of the Coastal Plain rose seasonally from October 1983 through March or April 1984, then declined through September. During the year, there was a net decline in water levels in many areas, continuing a long-term downward trend caused by withdrawals of ground water for industrial and public supplies. A notable exception occurred in the northern part of the Coastal Plain where 1984 water levels in the Potomac-

Raritan-Magothy aquifer system and the Englishtown aquifer leveled off from the steady declines of preceding years.

Monthly water levels are compared with long-term averages at two water-table observation wells shown in figure 4; the wells are the Bird well in Hunterdon County and the Crammer well in Ocean County. For further comparison, multi-year hydrographs are provided for most of the wells given in these reports. The hydrographs are shown with the 1984 water-level data.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound Units to Metric Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life processes. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer codes and geologic names:

The following list shows the aquifer unit codes and geologic names of the formations in which the sampled wells are finished. The aquifer unit codes also appear in the ground-water quality tables.

112SFDF	,	STRATIFIED DRIFT
112CPMY	,	CAPE MAY FORMATION, UNDIFFERENTIATED
112ESRNS	,	CAPE MAY FORMATION, ESTUARINE SAND FACIES
121CNSY	,	COHANSEY SAND
121CKKD	,	KIRKWOOD-COHANSEY AQUIFER SYSTEM
122KRKDU	,	RIO GRANDE WATER-BEARING ZONE OF THE KIRKWOOD FORMATION
122KRKDL	,	ATLANTIC CITY 800-FOOT SAND OF THE KIRKWOOD FORMATION
124PNPN	,	PINEY POINT AQUIFER
124MNSQ	,	MANASQUAN FORMATION
125VNCN	,	VINCENTOWN FORMATION
211MLRW	,	WENONAH-MOUNT LAUREL AQUIFER
211EGLS	,	ENGLISHTOWN AQUIFER
211MRPA	,	POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM, UNDIFFERENTIATED
211MRPAU	,	UPPER AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM, (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
211MRPAM	,	MIDDLE AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
211MRPAL	,	LOWER AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
211ODBG	,	OLD BRIDGE AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (MERCER, MIDDLESEX, MONMOUTH COUNTIES)
211FRNG	,	FARRINGTON AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (MERCER, MIDDLESEX, MONMOUTH COUNTIES)
231BRCK	,	BRUNSWICK FORMATION
231SCKN	,	STOCKTON FORMATION

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within

48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the quantity of organic matter which can be chemically oxidized in the presence of a strong oxidant.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of the evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum is a datum plane that is approximately at the land surface at the well.

Low tide is the minimum height reached by each falling tide.

Mean high or low tide is the average of all high or low tides, respectively, over a specified period.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G) is a unit expressing the concentration of a chemical element as the weight (micrograms) of the element sorbed per unit weight (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in Hem (1970).

National Geodetic Vertical Datum of 1929 (NGVD of 1929). A geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada, formerly called "Mean Sea Level."

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in these reports.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed materialdetermined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in active water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2/\text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3/\text{time})$ for phytoplankton] are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity that the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2/\text{time})$ for periphyton and macrophytes and $\text{mg O}_2/(\text{m}^3/\text{time})$ for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having an atomic weight of 35.453.

Radioisotopes that are determined in this report are natural uranium in μg/L (micrograms per liter), radium as radium-226 in PCI/L, (pCi/L, picocuries per liter), gross beta in PCI/L, and gross alpha radiation as micrograms of uranium equivalent per liter (μg/L). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Screened interval (FT) is the length of well screen through which water enters a well, in feet below land surface.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physcial surface upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization by organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total* concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata* is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexageria*
Species	*Hexagenia limbata*

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperatures of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total" (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample).

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is being transported in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports. Prior to 1975, WRD was used, which was the abbreviation for "Water-Resources Data."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 01463500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "463500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The wells and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, they are assigned sequential numbers "01", "02", etc. as one would for wells. See figure 1 below.

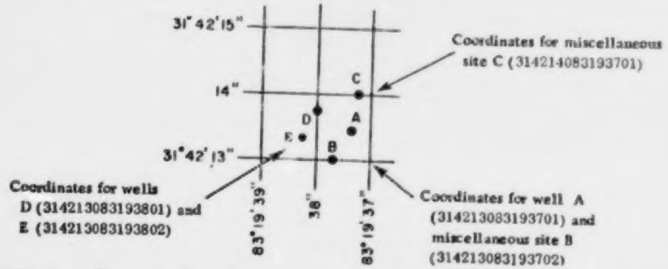
31°42'15"
14"
31°42'13"
C
D
A
E
B
Coordinates for miscellaneous site C (314214083193701)
Coordinates for wells D (314213083193801) and E (314213083193802)
83°19'39"
38"
83°19'37"
Coordinates for well A (314213083193701) and miscellaneous site B (314213083193702)

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in stream where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharge are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage height are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location for the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the U.S. Army Corps of Engineers or other agencies. Periods for which there are published records for the present stations or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first the extremes for current year, second, the extremes for the period of record, and last information available outside the period of record. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water record for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902; records for October 1965 to September 1970 have been compiled and published in Water-Supply Paper 2102. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of stage or discharge collected by agencies other than the Geological Survey

Records of stage or discharge not published by the Geological Survey were collected in New Jersey at 30 sites during the water years October 1960 to current year by the following agencies: records at 4 sites were collected by the North Jersey District Water Supply Commission; at 14 sites by Passaic County; at 1 site by the National Weather Service; at 3 sites by the National Ocean Survey; at 3 sites by the Corps of Engineers; and 5 sites by Delaware River Joint Toll Bridge Commission. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintain an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses are usually collected at or near gaging stations. Discharge records at these stations are used in the computation of some chemical constituent loads, as well as sediment loads.

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for water-quality data, extremes of the pertinent data, and general remarks. For ground-water sampling stations, no descriptive statements are presented. However, the well number, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes the concentrations of individual constituents and certain properties such as hardness, specific conductance, and pH. Microbiological information includes quantitative identifications of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a water-quality noncontinuous-digital monitor furnishes hourly temperature readings that provide daily maximum, minimum, and mean temperature data summaries. Fluvial-sediment information is given for suspended-sediment discharges and concentrations, and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 1 below.

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," and table for converting Inch-pound Units to International System Units, inside back cover).

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed at the end of this section. Analysis of pesticides, herbicides, and organic substances in water are described by Wershaw and others. The collection and analysis of aquatic and microbiological samples are described by Greeson and others.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through many vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with noncontinuous-digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office (for address see Page IV).

The quality of ground water normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are collected after prepumping the well and are analyzed individually.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. Influential factors, field measurement, and data representation of temperature are described by Stevens, Ficke and Smoot (1975).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment are included.

Remark codes for water-quality data

PRINTED OUTPUT	REMARK	PRINTED OUTPUT	REMARK
E	ESTIMATED VALUE	<	ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN
>	ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN	ND	MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED
K	RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT)		

Publications

Table 2 below, shows the annual series of water-supply papers that give information on quality of surface waters in New Jersey.

Table 2.--Water-supply paper (WSP) numbers, water years, 1945-70

Year	WSP	Year	WSP	Year	WSP
1945	1030	1954	1350	1963	1947
1946	1050	1955	1400	1964	1954
1947	1102	1956	1450	1965	1961
1948	1132	1957	1520	1966	1991
1949	1162	1958	1571	1967	2011
1950	1186	1959	1641	1968	2091
1951	1197	1960	1741	1969	2141
1952	1250	1961	1881	1970	2151
1953	1290	1962	1941		

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 1) and (2) a local name and a NJ-WRD well number that are provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD, lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above NGVD 1929, and the height of the measuring point (MP) above or below land-surface datum is given in each well description.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level data in these reports were obtained from water-level recorders, water-level extremes recorders, and from periodic manual measurements. The equipment used at each well is described in the well description under the listing "Instrumentation." Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom). Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of the extremes (highest and lowest water levels) are unknown. In these reports the water-level extremes are given with the interim dates together with the manually measured water levels.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, wheareas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. All measurements published herein are reported to a hundredth of a foot.

Publications

Table 3 below, shows the series of water-supply papers that give ground-water level data for New Jersey, 1935 to 1974. No water-level data were published in 1975. Beginning in 1976, ground-water level data for New Jersey have been published in these annual water data reports.

Table 3.--Water-supply paper (WSP) numbers, water years, 1935-74

Year	WSP	Year	WSP	Year	WSP
1935	777	1944	1016	1953	1265
1936	817	1945	1023	1954	1321
1937	840	1946	1071	1955	1404
1938	845	1947	1096	1956-57	1537
1939	886	1948	1126	1958-62	1782
1940	906	1949	1156	1963-67	1977
1941	936	1950	1165	1968-72	2140
1942	944	1951	1191	1973-74	2164
1943	986	1952	1221		

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

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Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

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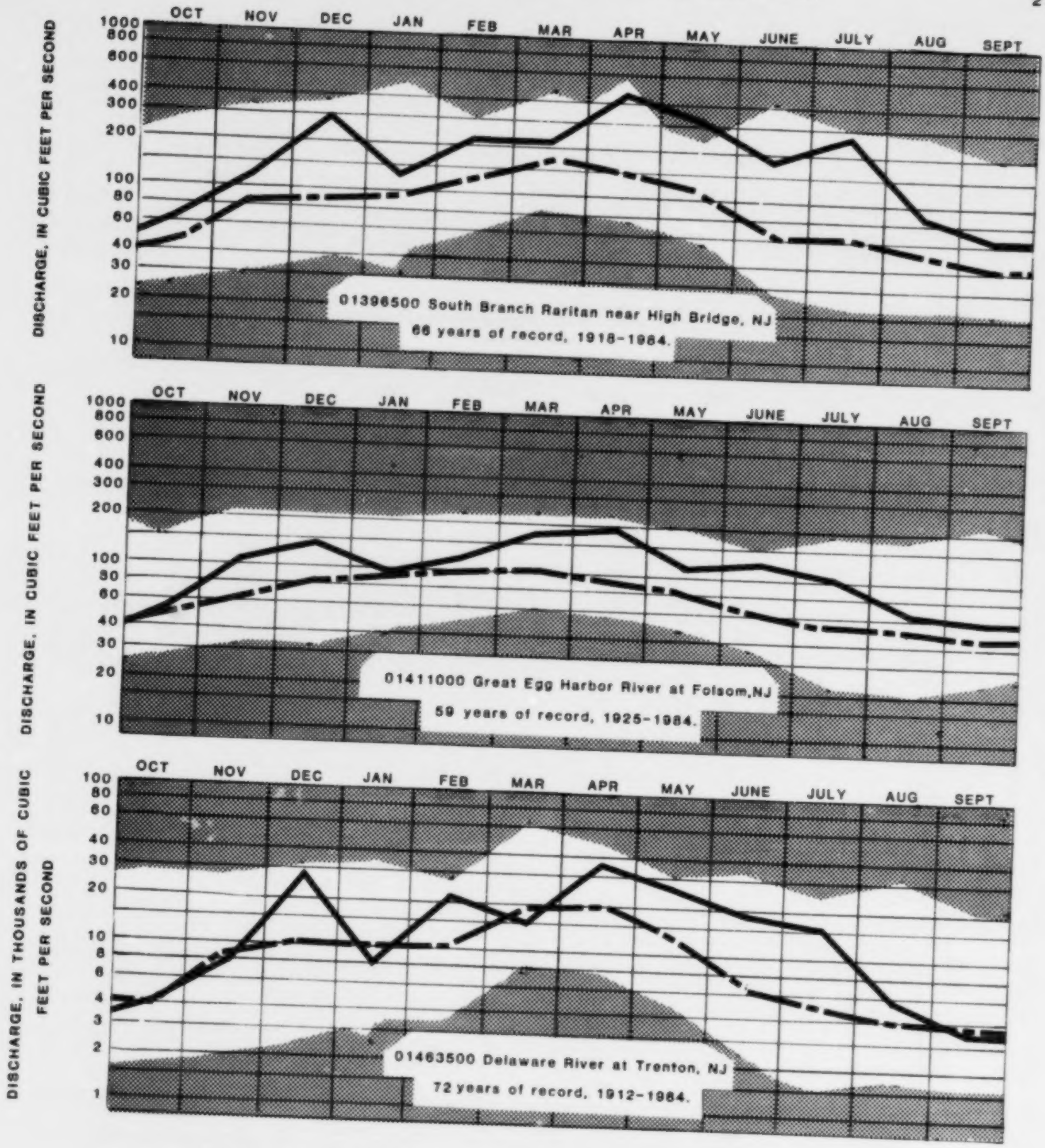


Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1984 water year.

Broken line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-1980.

Solid line.--Indicates observed monthly mean flow for the 1984 water year.

FIGURE 2.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS.

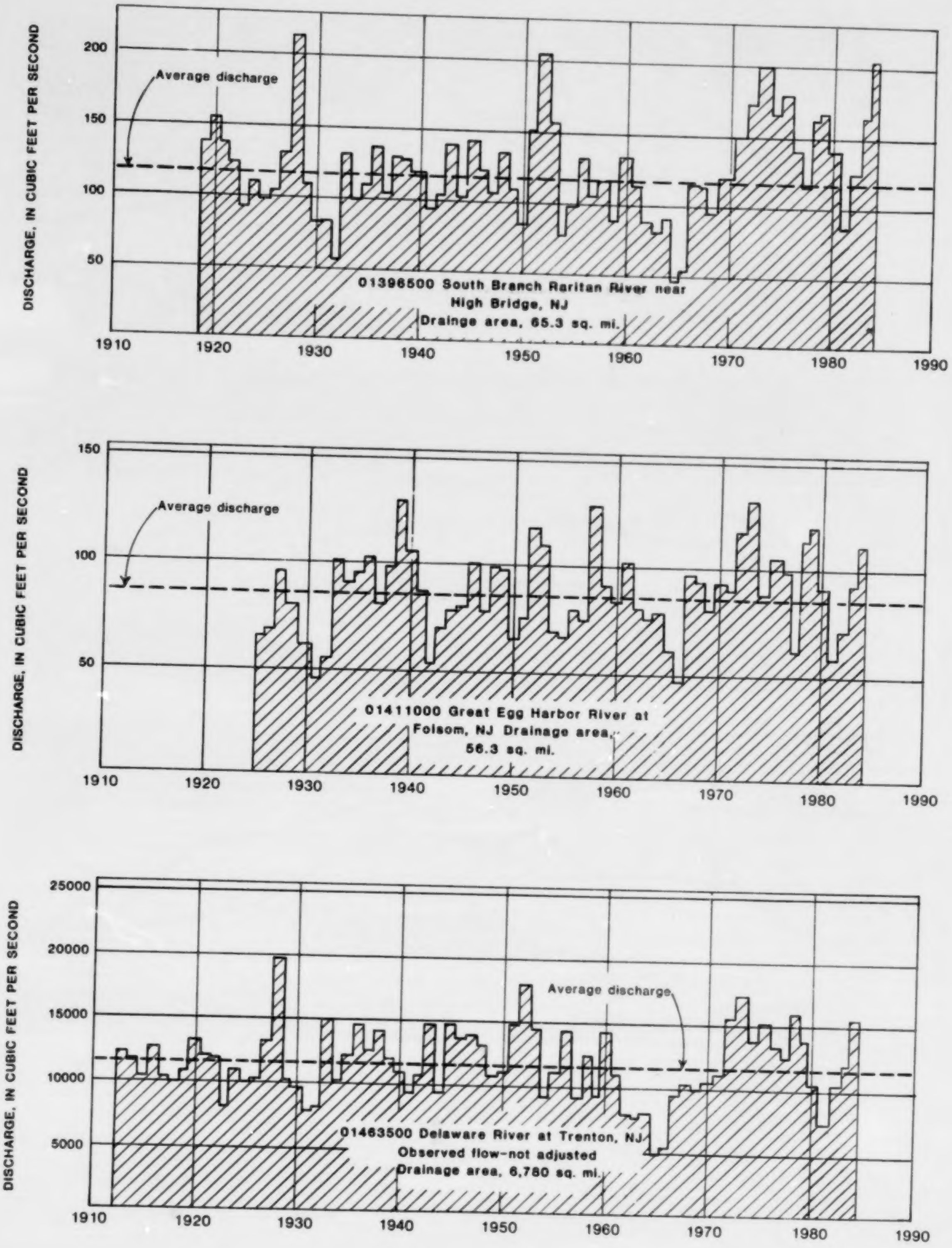
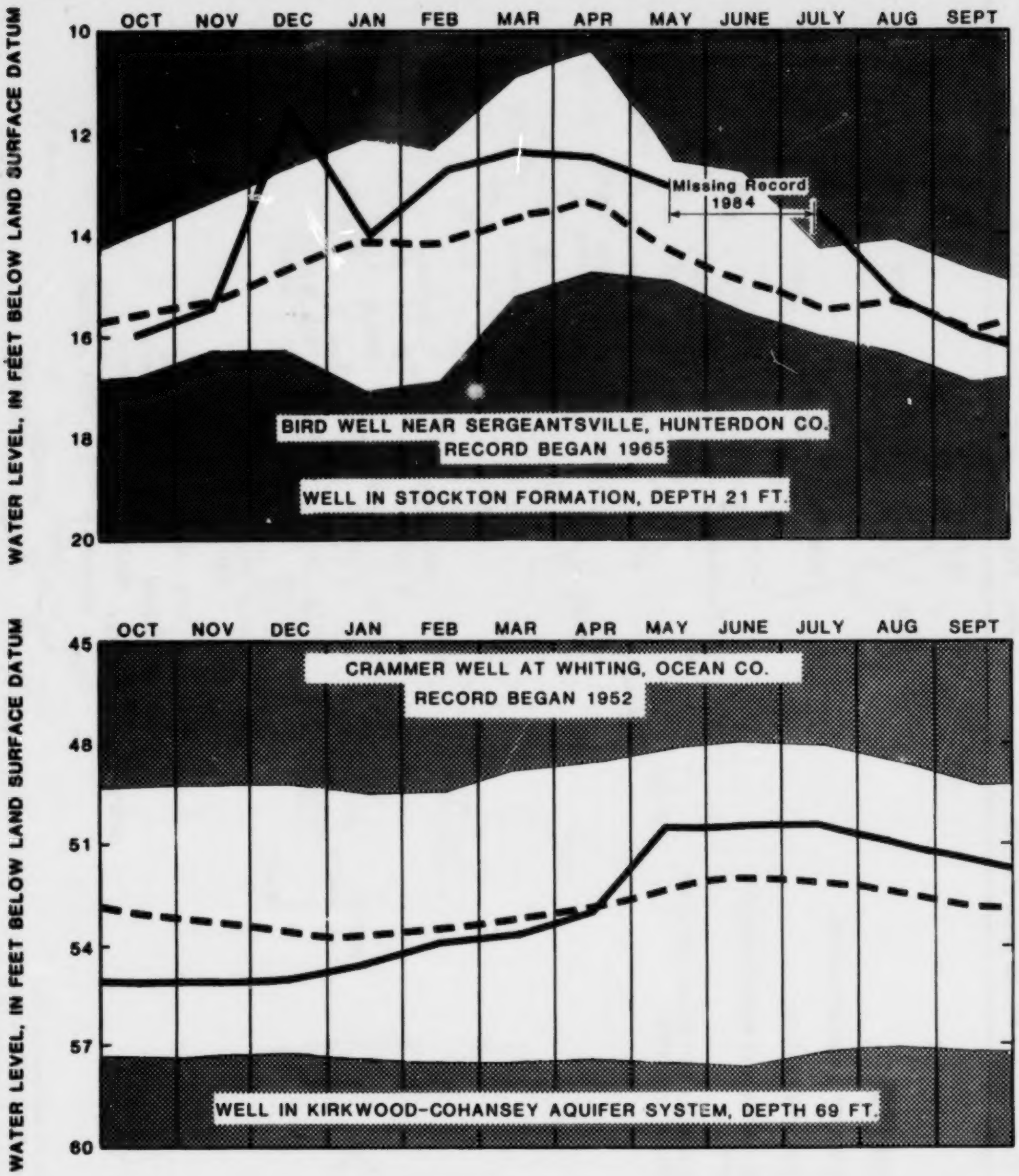


FIGURE 3.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS



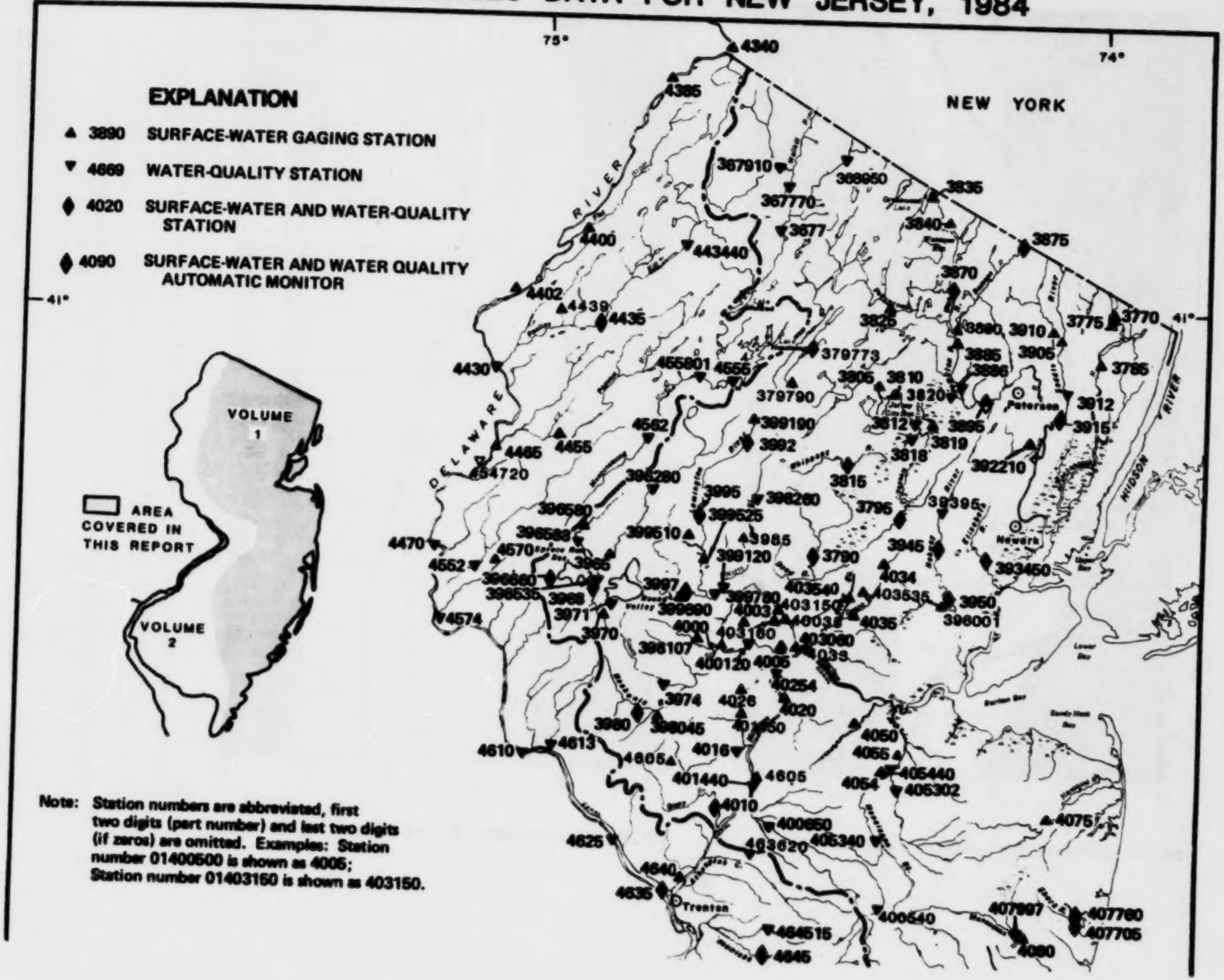
Unshaded area.--Indicates range between highest and lowest recorded monthly minimum water levels, prior to the current year.

Dashed line.--Indicates average of the monthly minimum water levels, prior to current year.

Solid line.--Indicates monthly minimum water level for the current year.

FIGURE 4.--MONTHLY GROUND-WATER LEVELS AT KEY WATER-TABLE OBSERVATION WELLS.

WATER RESOURCES DATA FOR NEW JERSEY, 1984



EXPLANATION

- ▲ 3890 SURFACE-WATER GAGING STATION
- ▼ 4669 WATER-QUALITY STATION
- ◆ 4020 SURFACE-WATER AND WATER-QUALITY STATION
- ◆ 4090 SURFACE-WATER AND WATER QUALITY AUTOMATIC MONITOR

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01400500 is shown as 4005; Station number 01403150 is shown as 403150.

75°
74°
41°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
Paterson
Newark
Trenton
Lower Bay
Raritan Bay
Sandy Hook Bay
AREA COVERED IN THIS REPORT
VOLUME 1
VOLUME 2
4340
4385
367910
368950
3835
367770
3840
3677
443440
3875
4400
4402
4439
4435
3870
3825
3775
3770
3880
3910
3905
3885
3886
3785
379773
455801
4555
3805
3810
3820
379790
3812
3895
3912
3915
4430
399190
3819
3818
4562
3992
392210
4465
4455
454720
396290
3815
3995
398260
396580
399525
3796
39395
396588
399510
3985
3945
4470
4570
399120
3790
4552
3965
393450
396660
3997
403540
4034
396535
3969
398780
403150
403535
3950
3971
399690
4003
40038
4035
396001
4574
3970
4000
403160
403060
398107
400120
4005
4033
40254
3974
4026
4020
3980
398045
401350
4610
4613
4016
4050
4605
4055
401440
4605
405440
4054
405302
4010
400650
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4645
4090

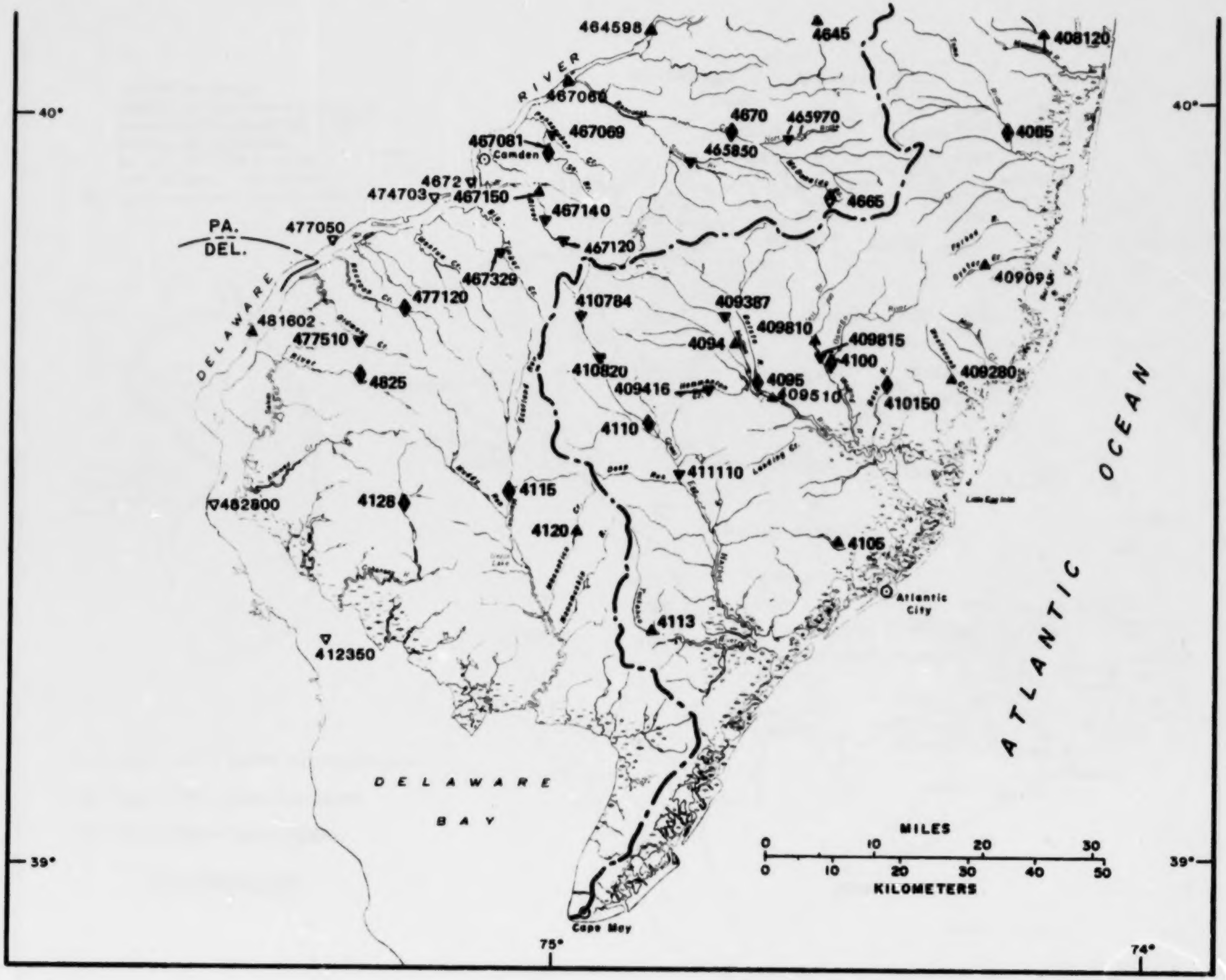
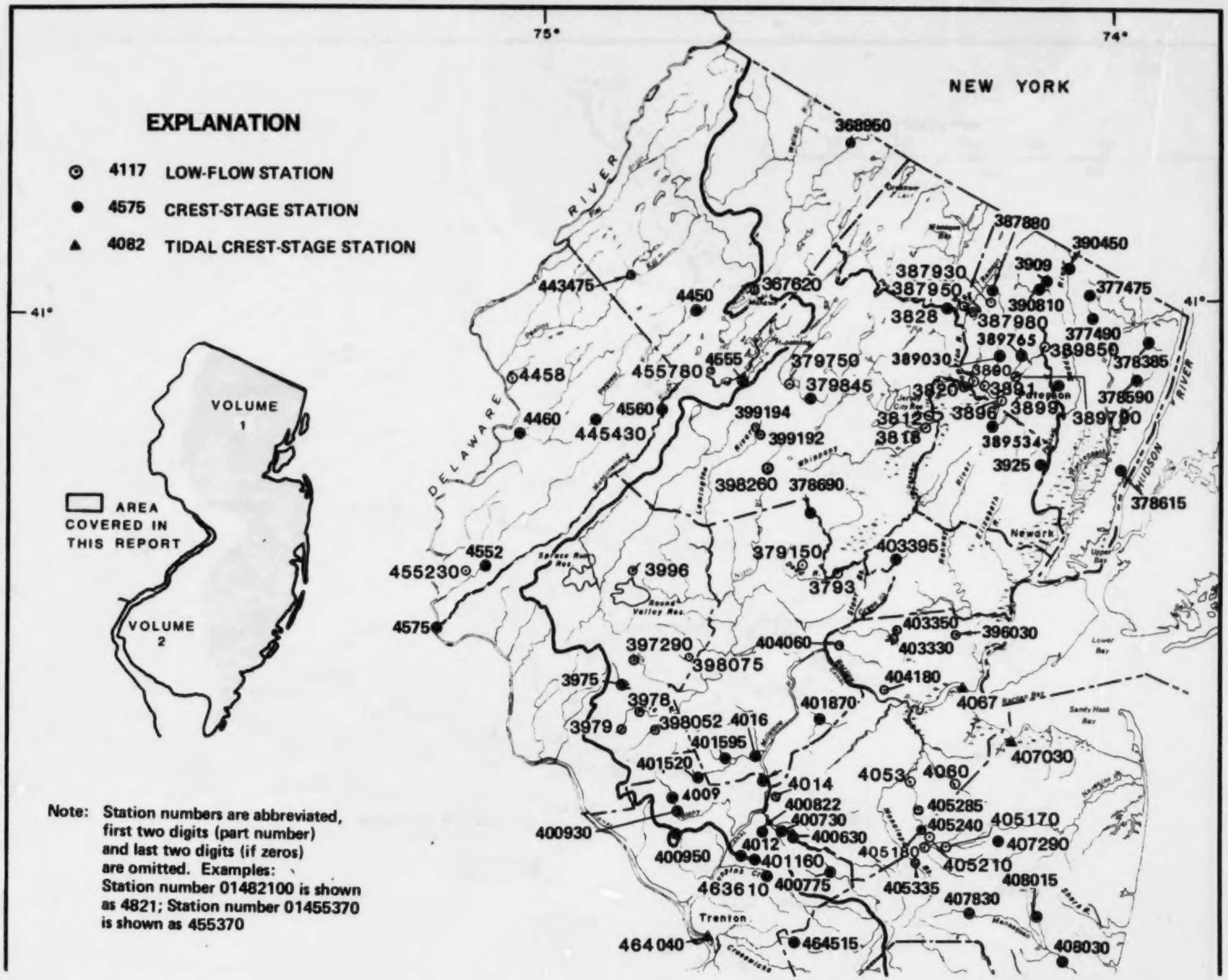

40°
40°
39°
39°
75°
74°
PA.
DEL.
DELAWARE
RIVER
DELAWARE BAY
ATLANTIC OCEAN
Camden
Atlantic City
Cape May
MILES
0
10
20
30
0
10
20
30
40
50
KILOMETERS
464598
4645
408120
467060
4670
465970
467069
467081
465850
4085
4672
474703
467150
4665
467140
477050
467120
467329
409095
477120
410784
409387
409810
481602
409815
477510
4094
4100
4825
410820
4095
409280
409416
409510
410150
4110
411110
482800
4128
4115
4120
4105
4113
412350

Figure 5.--Location of surface-water gaging stations and water-quality stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1984



EXPLANATION

⊙ 4117 LOW-FLOW STATION

● 4575 CREST-STAGE STATION

▲ 4082 TIDAL CREST-STAGE STATION

▭ AREA COVERED IN THIS REPORT

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01482100 is shown as 4821; Station number 01455370 is shown as 455370

75°
74°
41°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
VOLUME 1
VOLUME 2
Newark
Trenton
Lower Bay
Upper Bay
Sandy Hook Bay
Raritan Bay
Round Valley Res.
Spruce Run Res.
Jersey City Res.
Paterson
368950
387880
390450
387930
387950
3909
377475
3828
390810
387980
377490
389765
389850
378385
389030
3890
3820
3891
378590
3812
3896
3899
389790
3818
389534
3925
378615
367620
4450
443475
4555
379750
379845
4458
455780
4560
4460
445430
399194
399192
398260
378690
4552
455230
4575
3996
379150
403395
3793
403350
403330
396030
397290
404060
398075
404180
4067
3975
3978
401870
3979
398052
4016
401595
407030
401520
4053
4060
4014
4009
400822
405285
400730
405240
405170
400930
400630
407290
400950
4012
405180
405210
401160
463610
400775
405335
408015
407830
464040
464515
408030

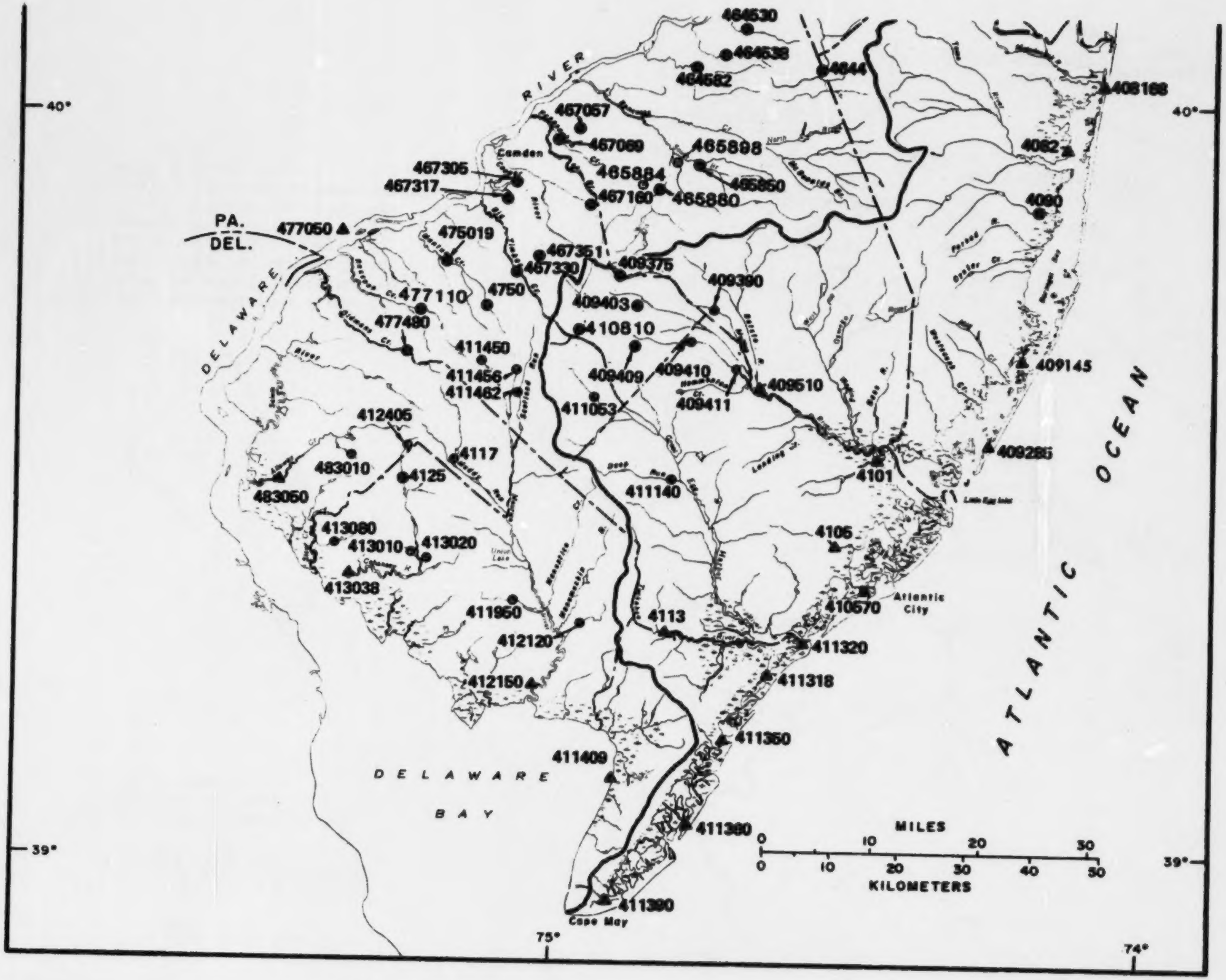
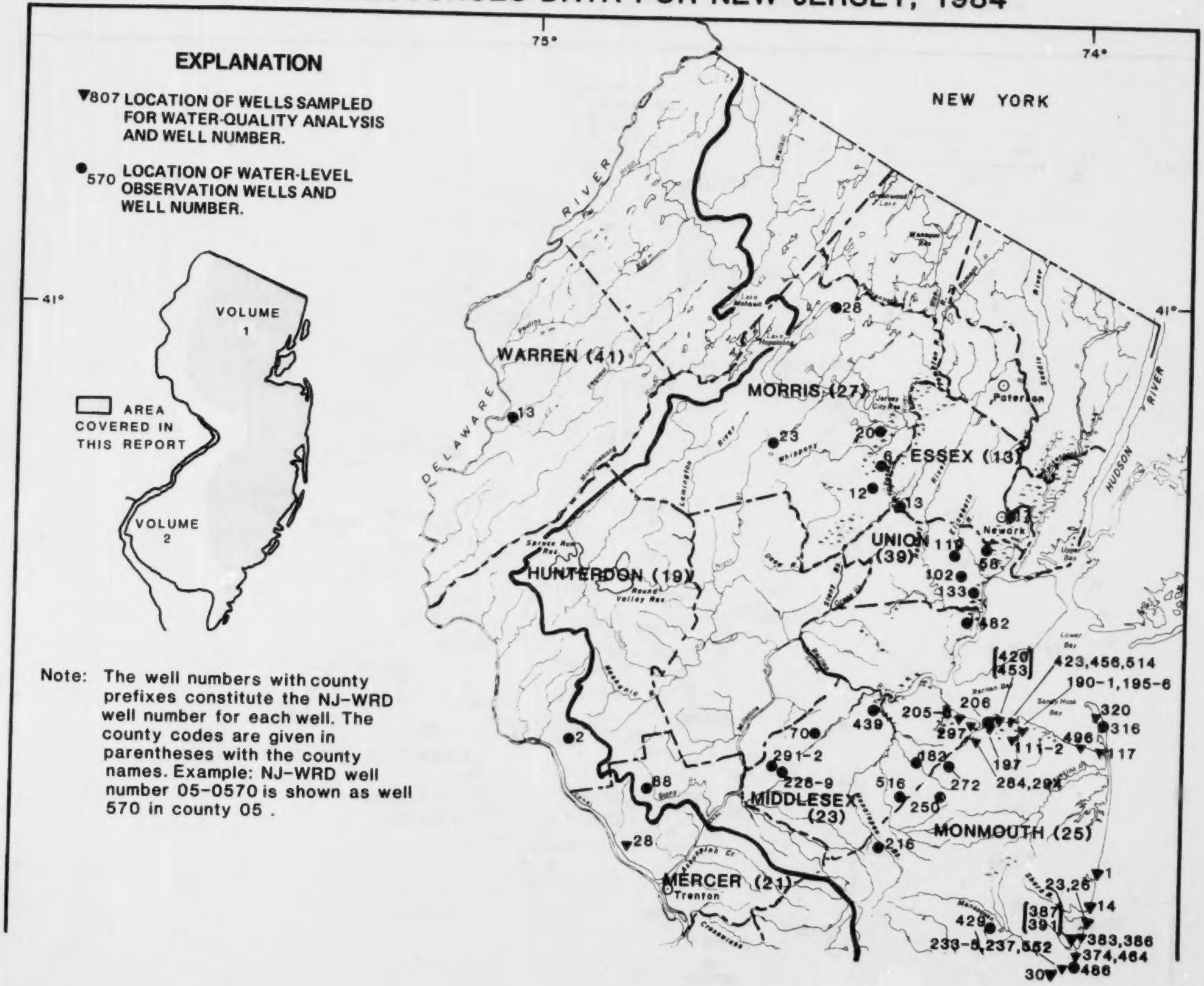

40°
40°
39°
39°
75°
74°
PA.
DEL.
DELAWARE
RIVER
DELAWARE BAY
ATLANTIC OCEAN
Camden
Atlantic City
Cape May
MILES
0
10
20
30
0
10
20
30
40
50
KILOMETERS
464530
464538
464582
4644
408168
467057
467069
465898
465884
465850
465880
467160
467305
467317
4082
4090
477050
475019
467351
467330
409375
409390
4750
477110
409403
477480
410810
411450
411456
411462
409409
409410
409411
409510
409145
411053
412405
4117
409285
483010
4125
4101
483050
411140
413080
413010
413020
4105
413038
410570
411950
4113
412120
411320
412150
411318
411350
411409
411380
411390

Figure 6.--Location of low-flow and crest-stage partial record stations.



EXPLANATION

▼807 LOCATION OF WELLS SAMPLED FOR WATER-QUALITY ANALYSIS AND WELL NUMBER.

●570 LOCATION OF WATER-LEVEL OBSERVATION WELLS AND WELL NUMBER.

☐ AREA COVERED IN THIS REPORT

Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05 .

75°
74°
41°
41°
NEW YORK
VOLUME 1
VOLUME 2
DELAWARE RIVER
HUDSON RIVER
WARREN (41)
MORRIS (27)
ESSEX (13)
UNION (39)
HUNTERDON (19)
MIDDLESEX (23)
MONMOUTH (25)
MERCER (21)
Trenton
Paterson
Newark
Lower Bay
Raritan Bay
Sandy Hook Bay
Upper Bay
Spruce Run Res.
Round Valley Res.
13
28
23
20
6
12
13
17
119
56
102
133
482
420
453
423,456,514
190-1,195-6
206
205-6
297
439
70
291-2
228-9
182
272
197
111-2
284,292
496
320
316
117
516
250
216
2
88
28
1
23,26
14
387
391
383,386
374,464
486
429
233-5,237,552
30

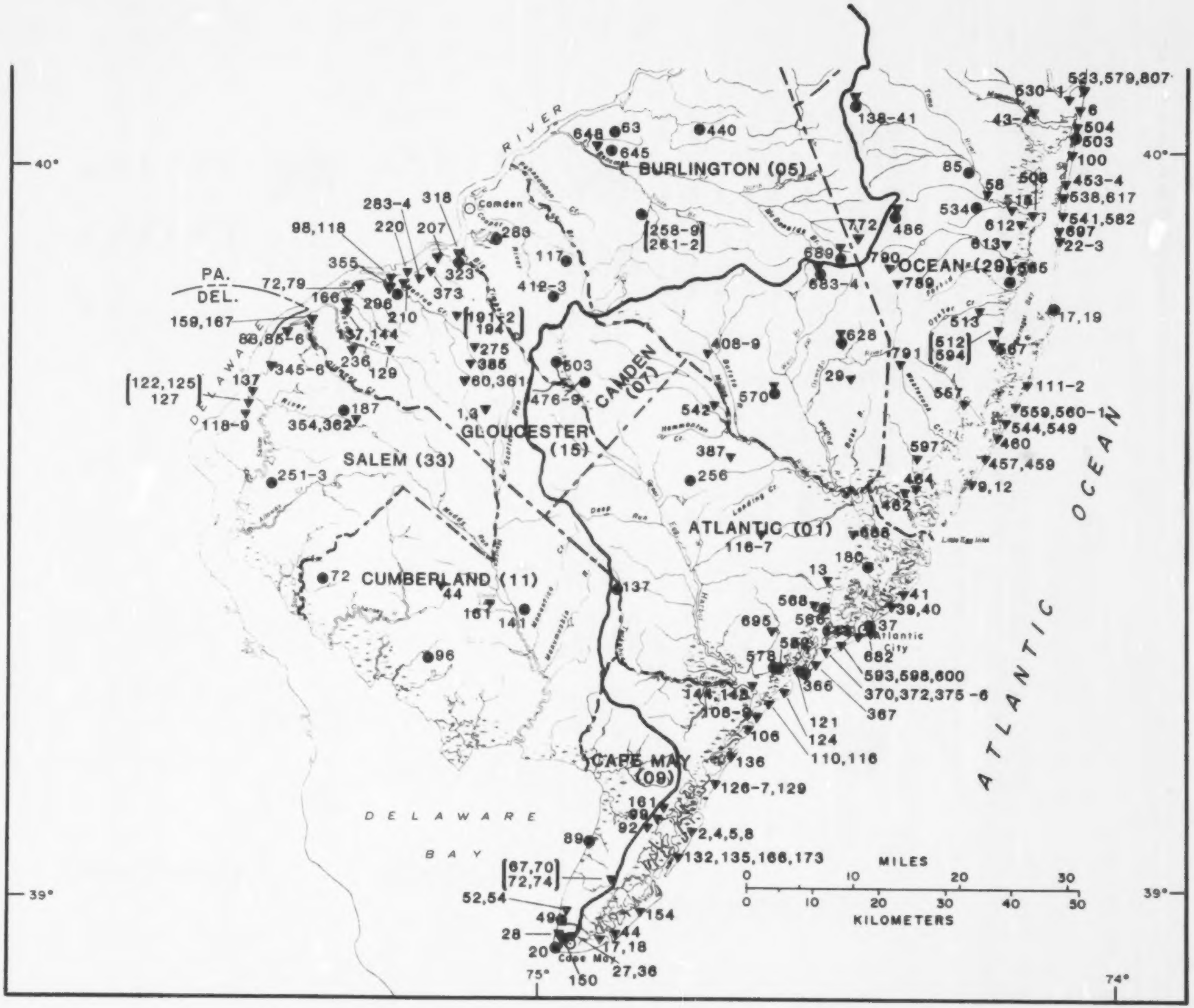

40°
39°
75°
74°
PA.
DEL.
RIVER
DELAWARE
BAY
ATLANTIC
OCEAN
Camden
Atlantic City
Cape May
Little Egg Inlet
BURLINGTON (05)
OCEAN (29)
CAMDEN (07)
GLOUCESTER (15)
SALEM (33)
ATLANTIC (01)
CUMBERLAND (11)
CAPE MAY (09)
MILES
0 10 20 30
KILOMETERS
0 10 20 30 40 50
523,579,807
530-1
43-4
6
504
503
100
453-4
538,617
541,582
697
22-3
138-41
648
63
645
440
85
58
508
518
534
612
613
772
486
689
683-4
790
789
565
17,19
513
512
594
567
628
791
29
408-9
111-2
559,560-1
544,549
460
457,459
9,12
597
484
482
570
542
387
256
686
116-7
180
13
41
39,40
568
566
695
137
682
593,598,600
370,372,375-6
367
578
588
366
121
124
110,116
144,145
108-9
106
136
126-7,129
161
99
92
2,4,5,8
132,135,166,173
89
67,70
72,74
52,54
49
154
44
17,18
28
20
27,36
150
137
72
44
161
141
96
251-3
187
354,362
1,3
503
476-9
191-2
194
275
385
360,361
117
412-3
288
258-9
261-2
318
283-4
220
207
323
373
98,118
355
210
296
72,79
166
159,167
137,144
86,88-6
236
129
345-6
122,125
127
137
118-9

Figure 7.-- Location of ground-water quality station and observation wells.

HUDSON RIVER BASIN

01367700 WALLKILL RIVER AT FRANKLIN, NJ

LOCATION.--Lat 41°06'43", long 74°35'21", Sussex County, Hydrologic Unit 02020007, at bridge 120 ft downstream from dam at outlet of Franklin Pond in Franklin, and 0.8 mi upstream from Wildcat Brook.

DRAINAGE AREA.--29.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 17...	1330	3.8	497	8.4	14.0	9.8	--	2.6	<20	13
FEB 08...	1215	38	383	7.9	.0	13.5	--	E2.1	50	27
MAR 28...	1330	94	318	8.2	6.0	12.6	--	E2.2	<20	2
JUN 13...	1215	39	380	7.9	24.0	8.4	--	E2.1	50	170
JUL 26...	1330	33	396	8.3	22.0	8.3	96	E1.9	20	1600
AUG 21...	1045	16	448	8.4	21.0	8.7	99	E2.1	790	1600

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	180	44	18	28	2.0	143	23	53	.10
FEB 08...	120	28	11	30	1.0	87	18	57	<.10
MAR 28...	96	24	8.7	21	.90	70	17	40	.20
JUN 13...	130	32	12	21	1.1	104	11	37	.10
JUL 26...	130	32	12	20	1.0	111	13	37	.10
AUG 21...	150	37	15	24	1.5	137	16	47	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	7.3	286	.017	.43	.070	.54	.97	.050	4.1
FEB 08...	6.4	222	.009	.45	.090	.30	.75	.030	3.5
MAR 28...	4.9	162	.008	.35	<.050	1.3	1.7	.030	2.6
JUN 13...	4.5	223	.014	.31	.170	.50	.81	.050	3.6
JUL 26...	7.4	224	.008	.28	.140	.61	.89	.060	4.2
AUG 21...	7.3	255	.012	.39	.080	.49	.88	.050	3.1

01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--41°11'38", long 74°34'32", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.8 mi upstream of Papakating Creek, 1.7 mi southwest of Independence Corner, 2.0 mi southeast of Sussex, and 2.1 mi northwest of McAfee.

DRAINAGE AREA.--60.8 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 17...	1200	19	582	8.1	11.0	10.2	--	2.2	700	79
FEB 09...	1045	85	452	8.0	.0	14.1	--	E2.3	140	17
MAR 28...	1230	138	378	8.0	5.5	11.8	--	E2.0	20	4
JUN 13...	1050	80	450	7.7	21.0	7.1	--	E2.0	790	540
JUL 26...	1215	71	429	8.0	19.0	7.8	85	E1.3	80	350
AUG 21...	1230	46	508	8.3	17.5	8.8	93	2.7	490	920

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	240	55	26	24	2.2	197	27	42	.10
FEB 09...	160	38	17	25	1.4	135	23	49	<.10
MAR 28...	140	33	14	18	1.1	113	19	35	.10
JUN 13...	190	43	19	18	1.3	157	17	32	.10
JUL 26...	190	45	19	17	1.1	173	17	31	.10
AUG 21...	200	47	21	19	1.9	183	21	36	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	8.5	320	.010	.72	<.050	.42	1.1	.070	3.8
FEB 09...	6.9	259	.011	.85	.310	.33	1.2	.060	2.0
MAR 28...	3.9	203	.008	.61	.180	.63	1.2	.030	2.5
JUN 13...	6.9	274	.019	.66	.260	.69	1.4	.100	3.7
JUL 26...	8.7	296	.010	.62	.150	.66	1.3	.070	4.4
AUG 21...	8.4	281	.010	.66	.050	.72	1.4	.060	3.6

01367770 WALLKILL RIVER NEAR SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
JUN									
13...	1050	<.5	30	3	<10	20	<1	<10	7

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
13...	960	7	280	<.1	5	<1	80	<1

01367910 PAPAKATING CREEK AT SUSSEX, NJ

LOCATION.--Lat 41°12'02", long 74°35'59", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 23 in Sussex, 0.7 mi downstream from Clove Brook, 2.6 mi southwest of Independence Corner, and 3.4 mi northwest of McAfee.

DRAINAGE AREA.--59.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 19...	1230	E20	333	7.7	12.0	8.4	--	3.3	2400	>2400
FEB 16...	1315	E364	142	7.1	1.5	12.2	--	E3.3	1300	>2400
APR 10...	1130	E157	203	7.7	7.5	11.6	--	E1.3	1100	240
JUN 13...	1300	E48	254	7.8	23.5	6.5	78	3.6	460	170
JUL 30...	1045	E44	246	7.8	20.0	7.5	83	2.6	490	540
AUG 23...	1100	E27	277	7.5	20.5	6.1	69	3.9	3500	920

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 19...	120	39	5.6	14	3.5	81	31	27	<.10
FEB 16...	37	11	2.2	9.9	1.9	18	18	20	<.10
APR 10...	56	18	2.8	11	1.3	29	22	19	.10
JUN 13...	87	28	4.1	12	1.6	59	22	22	.10
JUL 30...	81	26	3.9	11	1.5	62	18	20	<.10
AUG 23...	96	31	4.5	12	2.0	70	26	23	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	5.6	204	.037	.85	.090	1.0	1.9	.180	5.0
FEB 16...	4.4	89	.017	.66	.370	.63	1.3	.140	5.0
APR 10...	4.4	115	.007	.98	.120	.30	1.3	.050	2.7
JUN 13...	5.7	179	.055	1.1	.210	.84	2.0	.130	3.5
JUL 30...	5.9	161	.046	.84	.040	.72	1.6	.090	4.6
AUG 23...	5.2	168	.035	1.2	.180	.71	1.9	.220	4.5

01367910 PAPAKATING CREEK AT SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
19...	1230	<.5	990	<.1	4.1	<10	1	<1	<10	100	<1	1
JUN												
13...	1300	<.5	--	--	--	50	1	--	<10	20	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
19...	20	6	10	5	0	1600	6700	20	20	160	140
JUN											
13...	20	--	--	2	--	1100	--	5	--	150	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
19...	<.1	.05	2	<10	<1	<1	10	40	1	<1	<1.0
JUN											
13...	<.1	--	2	--	<1	--	10	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
19...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
JUN											
13...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN											
13...	--	--	--	--	--	--	--	--	--	--	--

01368950 BLACK CREEK NEAR VERNON, NJ

LOCATION.--Lat 41°13'21", long 74°28'33", Sussex County, Hydrologic Unit 02020007, at bridge on Maple Grange road, 0.6 mi upstream of confluence with Wawayanda Creek, 0.7 mi northwest of Maple Grange, and 1.7 mi northeast of Vernon.

DRAINAGE AREA.--17.3 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 19...	1045	E9.0	680	7.8	11.0	7.8	--	2.9	2400	>2400
FEB 16...	1115	E104	265	7.6	1.5	10.2	--	E2.6	1300	1600
MAR 28...	1045	E33	510	7.7	6.0	8.8	--	2.7	20	33
JUN 13...	1100	E18	450	7.6	21.5	5.2	60	E1.7	230	920
JUL 30...	1245	E17	642	7.8	19.0	6.7	73	E2.2	3500	920
AUG 23...	1330	E11	658	8.0	20.5	7.1	81	2.3	1800	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 19...	240	55	25	34	2.9	189	33	70	.10
FEB 16...	87	20	8.9	18	1.1	68	15	35	.10
MAR 28...	180	42	18	27	1.2	147	20	54	.10
JUN 13...	220	51	22	25	1.2	187	14	49	.20
JUL 30...	220	53	22	25	1.3	196	16	48	.20
AUG 23...	220	49	24	35	2.2	191	23	70	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	7.4	391	.021	.64	.840	1.0	1.7	.170	6.4
FEB 16...	4.4	154	.014	.44	.170	.62	1.1	.110	4.7
MAR 28...	3.1	264	.009	.64	.100	.24	.88	.030	2.3
JUN 13...	8.1	345	.028	.66	.240	1.0	1.7	.180	5.6
JUL 30...	7.8	348	.010	.80	.170	.48	1.3	.110	4.8
AUG 23...	6.0	348	.230	1.8	.950	E1.1	--	.120	2.9

01368950 BLACK CREEK NEAR VERNON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
19...	1045	<.5	10	1	<10	40	1	10	2
JUN									
13...	1100	<.5	100	3	<10	<20	<1	20	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
19...	1100	4	350	<.1	2	<1	<10	1
JUN								
13...	2600	10	570	.2	3	<1	20	1

01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, NY, Hydrologic Unit 02030103, on right bank 20 ft downstream from Penn Central Transportation Company railroad bridge at West Nyack, 1,000 ft upstream from State Highway 59, and 1.0 mi downstream from DeForest Lake.

DRAINAGE AREA.--29.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1958 to current year.

GAGE.--Water-stage recorder and stop-log control. Datum of gage is 53.50 ft National Geodetic Vertical Datum of 1929 (levels by Hackensack Water Company).

REMARKS.--Water-discharge records poor. Flow regulated by DeForest Lake (see Reservoirs in Hackensack River Basin). Diversion from gaging station pool for municipal supply for village of Nyack (see Diversions in Hackensack River Basin). Discharge given for this station represents the flow of Hackensack River downstream from this diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft³/s; maximum gage height, 9.78 ft Apr. 10, 1980; minimum daily discharge, 2.6 ft³/s June 12, 1965, Sept. 25, 26, 30, 1966; minimum gage height, 1.70 ft Oct. 22, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft³/s May 30, gage height, 10.52 ft; minimum, 11 ft³/s Sept. 26, gage height, 2.65 ft; minimum daily, 14 ft³/s Sept. 22, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	35	21	67	28	104	125	46	334	194	18	17
2	38	31	19	59	25	83	118	40	167	218	18	17
3	39	25	20	54	23	71	100	38	129	93	18	19
4	40	20	39	50	65	62	90	202	101	106	17	29
5	41	18	28	48	75	62	990	187	88	86	18	18
6	41	18	29	45	80	89	829	98	77	385	18	16
7	40	18	34	43	69	84	296	81	69	1090	25	17
8	41	18	21	38	55	70	171	91	61	504	18	18
9	43	18	18	35	44	78	130	137	54	164	16	16
10	42	21	17	32	37	54	112	95	45	102	16	16
11	42	28	17	41	37	49	100	78	36	88	18	16
12	59	21	40	34	50	42	89	70	29	78	19	15
13	51	19	202	30	56	45	83	70	23	63	18	15
14	48	19	96	28	62	122	85	71	23	53	18	16
15	40	18	43	27	313	137	176	60	22	46	17	17
16	40	38	80	25	257	118	361	53	15	56	17	18
17	41	23	92	24	117	178	270	47	16	60	17	18
18	42	20	87	23	95	103	140	33	18	64	17	17
19	60	19	91	25	84	90	133	30	34	63	17	16
20	45	19	79	23	79	79	107	29	35	50	19	16
21	43	47	62	23	70	71	102	31	29	44	18	15
22	42	23	151	23	62	67	84	29	20	42	17	14
23	51	21	299	23	57	61	72	30	15	31	17	15
24	122	23	125	24	107	57	80	38	18	30	17	16
25	51	51	84	40	102	53	75	29	74	26	17	15
26	45	26	72	43	95	56	70	25	54	22	17	14
27	43	21	62	42	77	41	61	27	37	42	16	15
28	42	24	91	41	144	46	55	34	27	44	17	15
29	41	43	259	35	237	108	52	491	21	33	17	16
30	41	23	109	32	---	105	49	1300	57	26	17	16
31	40	---	81	33	---	110	---	783	---	23	18	---
TOTAL	1438	748	2468	1110	2602	2495	5205	4373	1728	3926	547	498
MEAN	46.4	24.9	79.6	35.8	89.7	80.5	174	141	57.6	127	17.6	16.6
MAX	122	51	299	67	313	178	990	1300	334	1090	25	29
MIN	38	18	17	23	23	41	49	25	15	22	16	14

CAL YR 1983 TOTAL 21202 MEAN 58.1 MAX 554 MIN 12
WTR YR 1984 TOTAL 27138 MEAN 74.1 MAX 1300 MIN 14

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'55", long 73°59'27", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WRD-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 22.51 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by De Forest Lake and Lake Tappan (see Hackensack River Basin, reservoirs in). Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--43 years, 90.1 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft^3/s May 30, 1984, gage height, 7.85 ft; no flow part of Jan. 16, 1970 and May 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft^3/s May 30, gage height, 7.85 ft; minimum, 13 ft^3/s Nov. 14, 15, gage height 1.50 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	16	16	112	65	220	243	84	1260	325	46	145
2	29	18	15	99	56	142	201	77	566	474	43	144
3	27	18	16	90	53	124	171	74	281	221	41	164
4	26	18	47	84	114	107	154	200	191	149	38	143
5	28	18	24	81	134	107	1170	336	140	141	36	42
6	28	18	24	78	151	148	1960	222	134	488	35	39
7	26	17	37	76	135	141	1140	157	122	1540	36	38
8	24	17	18	70	110	122	453	156	112	1630	43	53
9	24	16	17	63	92	128	246	222	100	729	37	72
10	40	18	17	60	80	105	187	190	89	252	34	71
11	62	27	17	77	75	94	165	149	76	152	33	71
12	72	18	38	67	86	83	145	128	63	139	34	70
13	35	16	235	59	95	85	133	130	55	118	32	69
14	31	15	205	56	100	223	136	127	54	101	30	68
15	21	14	226	53	384	255	210	110	48	87	29	70
16	20	36	132	50	682	223	557	96	41	114	27	95
17	20	16	127	47	298	267	600	73	36	117	30	133
18	20	14	123	46	160	208	327	43	38	123	41	127
19	44	14	121	51	141	157	227	47	46	121	81	121
20	20	14	114	48	135	139	195	53	52	98	109	123
21	17	41	99	44	122	132	171	69	49	92	99	132
22	16	17	258	43	108	118	144	56	43	91	98	143
23	27	15	511	39	98	109	130	60	37	76	100	150
24	124	17	321	44	198	99	125	84	35	64	98	149
25	22	54	170	82	182	91	122	66	187	54	97	147
26	18	21	177	94	161	91	114	56	129	46	96	144
27	18	16	136	92	131	81	103	52	92	88	107	138
28	18	20	137	89	201	86	95	64	69	93	148	119
29	17	44	397	80	380	186	92	630	56	76	148	100
30	16	18	265	72	---	224	85	2020	107	61	147	99
31	16	---	135	74	---	232	---	2190	---	51	148	---
TOTAL	939	621	4175	2120	4727	4527	9801	8021	4308	7911	2121	3179
MEAN	30.3	20.7	135	68.4	163	146	327	259	144	255	68.4	106
MAX	124	54	511	112	682	267	1960	2190	1260	1630	148	164
MIN	16	14	15	39	53	81	85	43	35	46	27	38

CAL YR 1983 TOTAL 38771 MEAN 106 MAX 1340 MIN 14
WTR YR 1984 TOTAL 52450 MEAN 143 MAX 2190 MIN 14

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1964 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 03...	1100	27	281	7.6	17.5	6.3	65	3.2	1300	1700
JAN 23...	1230	39	329	7.6	.5	13.3	90	2.1	20	<200
APR 11...	1200	164	322	8.1	10.0	12.3	108	3.6	50	50
JUN 05...	1100	142	253	8.0	17.5	9.0	93	--	110	330
JUL 30...	1030	63	262	7.8	22.5	7.1	81	4.5	200	500
SEP 04...	1315	104	226	7.8	21.0	7.5	84	4.2	--	--

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 03...	95	29	5.6	16	2.2	65	24	27	<.10
JAN 23...	100	31	6.1	25	1.9	71	26	42	<.10
APR 11...	81	25	4.6	29	1.5	53	19	52	<.10
JUN 05...	74	23	4.1	18	1.5	52	18	32	.10
JUL 30...	84	26	4.7	16	1.6	64	16	29	<.10
SEP 04...	75	23	4.2	13	1.8	55	19	24	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	4.2	177	.128	1.2	.540	1.2	2.4	.130	7.6
JAN 23...	4.9	205	.016	1.0	.270	.86	1.9	.050	5.2
APR 11...	3.8	190	.013	.71	.090	.90	1.6	.070	3.7
JUN 05...	2.9	187	.028	.56	<.050	.82	1.4	.090	4.3
JUL 30...	4.4	163	.027	.44	.120	.43	.87	.080	5.0
SEP 04...	4.6	145	.013	.47	.100	.81	1.3	.120	5.7

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 03...	1100	<.5	500	.3	1.9	40	4	<1	<10	80	1	<1
JUN 05...	1100	<.5	--	--	--	50	1	--	<10	40	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 03...	<10	2	<10	<10	0	990	2200	8	10	450	730
JUN 05...	10	--	--	9	--	600	--	6	--	100	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	<.1	<.01	2	<10	<1	<1	10	20	2	<1	<1.0
JUN 05...	<.1	--	4	--	<1	--	30	--	8	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	.4	6.0	.7	.5	.3	<.1	<.1	<.1	<.1	<.1	.1
JUN 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 05...	--	--	--	--	--	--	--	--	--	--	--

01377500 PASCACK BROOK AT WESTWOOD, NJ

LOCATION.--Lat 40°59'33", long 74°01'19", Bergen County, Hydrologic Unit 02030103, on right bank 75 ft upstream from Harrington Avenue in Westwood, 500 ft downstream from Musquapsink Brook, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--29.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 28.62 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by Woodcliff Lake 3.0 mi above station (see Hackensack River Basin, reservoirs in). Water diverted for municipal supply by Spring Valley Water Co., by pumpage from well fields in headwater area of Pascack Brook in vicinity of Spring Valley, NY, and by Park Ridge Water Department by pumping from wells above Woodcliff Lake probably reduces flow past this station.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--50 years, 55.6 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft^3/s Sept. 12, 1971, gage height, 7.57 ft; minimum, 5.6 ft^3/s June 29, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	1015	608	3.92	May 29	0330	469	3.54
Dec. 22	1415	400	3.34	May 30	1830	999	4.68
Dec. 28	1845	417	3.39	July 7	1415	*1290	4.97
Apr. 5	2230	903	4.57				

Minimum discharge, 9.9 ft^3/s Sept. 14, gage height, 1.43 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	38	74	41	32	85	99	58	306	136	74	17
2	44	38	74	41	61	40	139	54	284	98	67	17
3	38	38	62	41	91	39	163	55	261	94	57	52
4	34	38	145	41	122	38	142	197	239	86	38	101
5	40	33	124	40	110	51	579	184	214	126	35	49
6	42	32	62	39	75	83	455	127	180	222	35	25
7	37	30	87	36	52	71	289	63	96	740	37	23
8	34	28	97	35	44	68	266	116	70	198	45	40
9	31	29	62	35	39	86	240	164	66	113	30	54
10	29	35	32	36	34	98	214	76	61	105	34	51
11	28	42	31	37	34	64	179	63	57	108	29	48
12	68	34	102	62	37	32	109	73	53	107	29	39
13	127	30	443	65	36	62	81	75	65	104	23	27
14	96	32	318	33	51	174	95	77	66	101	16	18
15	42	36	250	33	207	97	169	57	49	98	22	37
16	37	144	236	32	207	61	252	53	45	112	28	34
17	35	49	183	32	128	62	204	49	45	101	40	28
18	33	44	89	32	52	63	175	48	48	117	24	22
19	81	41	85	32	51	86	133	49	93	102	29	19
20	63	41	80	31	43	112	91	52	57	95	37	18
21	41	99	76	30	34	140	81	64	45	101	24	19
22	35	99	216	31	33	86	74	48	42	94	22	21
23	49	103	213	31	37	38	78	66	39	89	23	17
24	318	92	159	38	188	37	87	74	59	88	16	17
25	232	156	45	47	163	45	73	45	211	86	17	17
26	133	110	40	42	47	62	67	44	92	81	17	17
27	57	46	42	105	45	54	63	47	46	111	23	16
28	43	58	150	67	172	58	60	74	41	88	24	18
29	41	113	224	33	174	150	62	357	39	80	15	16
30	39	82	147	33	---	92	59	713	97	76	16	16
31	39	---	42	33	---	72	---	521	---	73	18	---
TOTAL	2093	1790	3990	1264	2399	2306	4778	3743	3066	3930	944	893
MEAN	67.5	59.7	129	40.8	82.7	74.4	159	121	102	127	30.5	29.8
MAX	318	156	443	105	207	174	579	713	306	740	74	101
MIN	28	28	31	30	32	32	59	44	39	73	15	16

CAL YR 1983 TOTAL 28463 MEAN 78.0 MAX 443 MIN 13
WTR YR 1984 TOTAL 31196 MEAN 85.2 MAX 740 MIN 15

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ

LOCATION.--Lat 40°56'52", long 74°01'34", Bergen County, Hydrologic Unit 02030103, on right bank upstream from two masonry dams and two lift gates at pumping plant of Hackensack Water Co., New Milford, 4.0 mi downstream from Pascack Brook, and 21.8 mi upstream from mouth.

DRAINAGE AREA.--113 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS: WSP 601: Drainage area. WSP 711: 1927-28(M). WRD-NJ 1970: 1969. WRD-NJ 1977: 1975(M).

GAGE.--Water-stage recorder above south dam. Datum of gage is 6.25 ft National Geodetic Vertical Datum of 1929. October 1921 to November 23, 1923, nonrecording gage and Nov. 23, 1923, to Sept. 25, 1934, water-stage recorder at same site at datum 0.05 ft lower.

REMARKS.--Water-discharge records fair except those below 1.0 ft³/s and those from Oct. 1 to Dec. 13, and Aug. 14 to Sept. 30, which are poor. Records given herein do not include diversion at gage. Flow regulated by DeForest Lake, Lake Tappan, Woodcliff Lake 9.0 mi upstream from station, and Oradell Reservoir 0.6 mi upstream from station (see Hackensack River Basin, reservoirs in). Water diverted at gage, De Forest Lake, and West Nyack, NY, for municipal supply (see Hackensack River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--63 years, 103 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s Nov. 9, 1977 and Apr. 5, 1984; maximum gage height, 7.96 ft April 5, 1984; no flow many days during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,500 ft³/s Apr. 5, gage height, 7.96 ft; minimum daily discharge, 0.39 ft³/s Aug. 15.

REVISIONS.--The figures of daily discharges for some days in March, April, May, June of 1983 were revised and are given in the table on the following page. They supersede the figures published in the report for 1983.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	.67	.81	94	22	312	368	57	2100	720	15	.57
2	.49	.84	.76	67	17	158	331	26	930	448	12	.50
3	.54	.70	.71	53	19	111	385	26	551	397	11	.50
4	.57	.78	.62	35	26	83	322	578	403	160	12	.49
5	.67	.82	.72	26	187	88	2910	519	316	284	12	.58
6	.53	.83	.62	22	205	222	3530	319	229	1560	11	.52
7	.52	.74	.74	22	156	185	1760	149	114	3260	9.1	.49
8	.65	.76	.80	19	86	145	676	287	64	2690	11	.61
9	.56	.72	.76	18	52	153	473	405	43	849	9.0	.58
10	.54	.62	.79	19	27	142	336	195	23	368	10	.58
11	.53	.71	.71	17	26	108	331	156	16	311	14	.58
12	.63	.77	.72	20	75	53	243	116	20	54	13	.50
13	.58	.76	1370	20	75	91	175	151	28	85	12	.53
14	.64	.55	1210	17	79	627	325	177	22	81	4.0	.64
15	.59	.63	443	20	953	415	536	106	20	68	.39	.57
16	.54	.73	365	23	892	343	1180	52	35	162	.57	.55
17	.60	.75	324	22	424	345	789	36	41	114	.50	.54
18	.55	.73	208	20	195	290	556	32	42	263	.48	.50
19	.57	.66	162	21	161	214	409	28	39	108	.52	.47
20	.57	.69	136	21	143	211	281	4.2	37	73	.65	.55
21	.65	.74	107	20	107	216	231	1.1	40	123	.52	.58
22	.57	.78	713	18	76	187	184	.68	37	90	.44	.61
23	.63	.80	637	18	54	78	219	1.6	40	49	.56	.59
24	.60	.72	522	19	545	54	169	12	43	35	.46	.57
25	.65	.80	200	18	386	51	186	44	38	21	.51	.53
26	.51	.80	110	19	194	79	132	29	156	17	.53	.63
27	2.7	.70	75	18	129	61	86	.89	177	179	.49	.49
28	.47	.71	298	19	511	68	60	92	74	50	.56	.56
29	.52	.66	537	22	596	575	71	1520	42	46	.55	.62
30	.51	.82	415	20	---	345	68	3660	129	42	.59	.45
31	.64	---	181	20	---	328	---	4230	---	13	.53	---
TOTAL	19.93	21.99	8021.76	787	6418	6338	17322	13010.47	5849	12720	163.95	16.48
MEAN	.64	.73	259	25.4	221	204	577	420	195	410	5.29	.55
MAX	2.7	.84	1370	94	953	627	3530	4230	2100	3260	15	.64
MIN	.47	.55	.62	17	17	51	60	.68	16	13	.39	.45

CAL YR 1983 TOTAL 28918.78 MEAN 79.2 MAX 2080 MIN .15
WTR YR 1984 TOTAL 70688.58 MEAN 193 MAX 4230 MIN .39

HACKENSACK RIVER BASIN

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.20	.20	.21	.17	.17	148	185	553	.55	.25	.49
2	.18	.18	.19	.20	.19	.17	194	163	305	.59	.50	.54
3	.20	.19	.21	.20	.20	.17	1170	317	115	.55	.49	.50
4	.20	.19	.20	.19	.22	.17	833	399	634	.49	.53	.48
5	.19	.24	.18	.20	.20	.18	254	419	385	.58	.47	.58
6	.18	.20	.18	.17	.20	.17	249	1.1	190	.51	.51	.53
7	.20	.21	.18	.20	.20	.17	181	1.2	109	.49	.49	.54
8	.20	.20	.20	.19	.18	.18	528	1.5	118	.58	.49	.49
9	.20	.18	.18	.19	.17	.16	976	6.9	70	.54	.58	.56
10	.19	.18	.20	.19	.19	.99	1350	.39	26	.61	.60	.52
11	.18	.20	.21	.17	.17	237	1840	.36	32	.56	.50	.67
12	.21	.18	.19	.17	.20	433	902	.32	25	.57	.51	.50
13	.18	.19	.19	.16	.18	268	329	.26	19	.46	.60	.58
14	.19	.18	.18	.20	.17	125	264	.30	.36	.46	.45	.44
15	.20	.21	.16	.21	.18	15	329	.29	.57	.53	.54	.48
16	.20	.18	.18	.19	.15	.60	1590	25	.49	.50	.57	.49
17	.20	.17	.21	.17	.18	.30	2200	19	.56	.56	.51	.63
18	.18	.19	.20	.17	.18	48	1060	5.8	.60	.61	.55	.57
19	.19	.17	.19	.19	.22	1180	1040	2.6	.55	.55	.52	.57
20	.19	.19	.21	.20	.20	347	1060	5.3	.51	.55	.52	.56
21	.20	.17	.18	.20	.20	1010	518	6.4	.52	.57	.48	.70
22	.18	.20	.18	.20	.18	370	316	6.1	.50	.62	.51	.63
23	.20	.20	.17	.17	.19	256	416	493	.47	.57	.54	.61
24	.18	.20	.21	.18	.19	90	1160	166	.41	.54	.52	.56
25	.19	.19	.20	.17	.21	34	1760	132	.49	.62	.54	.55
26	.18	.19	.19	.17	.20	11	1140	161	.53	.57	.40	.57
27	.19	.19	.16	.20	.19	319	572	684	.56	.57	.49	.52
28	.19	.20	.16	.18	.17	1170	305	348	.61	.54	.58	.60
29	.20	.23	.18	.20	---	780	312	286	.52	.56	.48	.62
30	.18	.21	.19	.20	---	226	232	444	.60	.54	.55	.86
31	.19	---	.21	.18	---	184	---	644	---	.49	.46	---
TOTAL	5.93	5.81	5.87	5.82	5.28	7106.43	23228	4923.82	2589.85	17.03	15.73	16.94
MEAN	.19	.19	.19	.19	.19	229	774	159	86.3	.55	.51	.56
MAX	.21	.24	.21	.21	.22	1180	2200	684	634	.62	.60	.86
MIN	.18	.17	.16	.16	.15	.16	148	.26	.36	.46	.25	.44

CAL YR 1982 TOTAL 7441.09 MEAN 20.4 MAX 979 MIN .11
WTR YR 1983 TOTAL 37926.51 MEAN 104 MAX 2200 MIN .15

RESERVOIRS IN HACKENSACK RIVER BASIN

01376700 DE FOREST LAKE.--Lat 41°06'23", long 73°58'01, Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.85 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi² revised. PERIOD OF RECORD, February 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Total capacity at crest of dam 4,068,000,000 gal, elevation, 80.00 ft. Crest of dam topped by two 50-foot Bascule gates 5 ft high. Flow regulated by 12-inch Howell-Bunger valve at elevation, 59.25 ft and 24-inch Howell-Bunger valve at elevation, 61.25 ft. Reservoir used for storage and water released by Hackensack Water Co., for municipal water supply. Record of elevation and contents furnished by Hackensack Water Co.

01376950 LAKE TAPPAN.--Lat 41°01'05", long°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.50 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi². PERIOD OF RECORD, October 1966 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam, completed in 1966. Capacity at spillway level, 3,378,000,000 gal, elevation, 55.00 ft. Flow regulated by four Bascule gates and one sluice gate. Water is released by Hackensack Water Co., for municipal water supply. Record of elevation and contents furnished by Hackensack Water Co.

01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.75 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi². PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam, completed about 1905. Capacity at spillway level, 835,000,000 gal, elevation, 94.33 ft. Flow is regulated by flashboards and one 36-inch gate in center of dam. Water is released for diversion at New Milford by Hackensack Water Co., for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. DRAINAGE AREA, 113 mi². PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 3,267,000,000 gal, elevation, 23.16 ft (revised). Flow regulated by seven sluice gates (7 by 9 ft). Water is released for diversion by Hackensack Water Co., 1 mi downstream from dam for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01376700	DE FOREST LAKE †		01376950	LAKE TAPPAN †		01377450	WOODCLIFF LAKE †	
Sept. 30	78.60	3,704	-	38.44	65	-	67.60	0	-
Oct. 31	78.03	3,538	-8.3	46.85	1,359	+64.6	67.60	0	0
Nov. 30	79.89	4,084	+28.2	50.78	2,440	+55.7	67.60	0	0
Dec. 31	85.27	5,759	+83.6	55.33	3,971	+76.4	67.60	0	0
CAL YR 1983	-	-	+7.9	-	-	+16.2	-	-	-0.4
Jan. 31	85.10	5,703	-2.8	55.23	3,935	-1.8	67.60	0	0
Feb. 29	85.39	5,799	+5.1	55.41	4,000	+3.5	67.60	0	0
Mar. 31	85.37	5,792	-.4	55.40	3,997	-.2	67.60	0	0
Apr. 30	85.16	5,722	-3.6	55.11	3,892	-5.4	67.60	0	0
May 31	85.48	5,829	+5.3	55.58	4,063	+8.5	67.60	0	0
June 30	85.31	5,772	-2.9	55.40	3,997	-3.4	67.60	0	0
July 31	85.03	5,680	-4.6	55.15	3,906	-4.5	67.60	0	0
Aug. 31	83.64	5,231	-22.4	52.92	3,128	-38.8	67.60	0	0
Sept. 30	81.93	4,699	-27.4	48.09	1,672	-75.1	67.60	0	0
WTR YR 1984	-	-	+4.2	-	-	+6.8	-	-	0
	01378480	ORADELL RESERVOIR †							
Sept. 30	17.07	2,031	-						
Oct. 31	21.23	3,001	+48.4						
Nov. 30	20.92	2,924	-4.0						
Dec. 31	23.24	3,528	+30.1						
CAL YR 1983	-	-	+6.8						
Jan. 31	22.63	3,363	-8.2						
Feb. 29	23.50	3,600	+12.6						
Mar. 31	23.52	3,606	+.3						
Apr. 30	23.24	3,528	-4.0						
May 31	23.73	3,665	+6.8						
June 30	23.44	3,583	-4.2						
July 31	23.10	3,490	-4.6						
Aug. 31	18.55	2,362	-56.3						
Sept. 30	18.68	2,391	+1.5						
WTR YR 1984	-	-	+1.5						

† Elevation at 0800 on first day of following month.

DIVERSIONS FROM HACKENSACK RIVER BASIN

01376272 Hackensack Water Co., diverts water from Sparkill Creek at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records furnished by Hackensack Water Co.

01376699 Spring Valley Water Co., diverts water at De Forest Lake for municipal supply in Rockland County, NY. Records furnished by Spring Valley Water Co.

01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, NY (sta 01376800) for municipal supply. Records furnished by Board of Water Commissioners of Nyack, NY.

01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station 2.0 mi upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft above gaging station on Hackensack River at New Milford, NJ (sta 01378500).

01378520 Hackensack Water Co., diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records furnished by Hackensack Water Co.

01391210 Hackensack Water Co., diverts water from Saddle River just north of bridge on State Route 4 at Arcola. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records furnished by Hackensack Water Co.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October	8.22	2.23	116
November	7.20	2.15	141
December	7.16	2.25	142
CAL YR 1983	9.71	2.34	140
January	6.77	2.54	148
February	6.64	2.71	134
March	6.71	2.72	139
April	6.70	2.78	141
May	6.84	2.95	150
June	12.0	3.18	174
July	11.2	3.16	157
August	13.2	3.14	177
September	14.7	2.68	165
WTR YR 1984	8.96	2.71	149

Tabulation of diversion by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October	0.62	3.10	14.9	3.08
November	.33	3.13	13.2	2.95
December	0	.67	3.01	0
CAL YR 1983.	0.27	1.58	7.94	1.38
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	.20
July	0	0	0	.17
August	0	0	0	.14
September	0	0	0	.14
WTR YR 1984.	.08	.58	2.60	.56

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ

LOCATION.--Lat 40°40'48", long 74°31'45", Somerset County, Hydrologic Unit 02030103, on right bank 200 ft downstream from Davis Bridge, 0.7 mi northwest of Millington, and 1.8 mi downstream from Black Brook.

DRAINAGE AREA.--55.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1903 to June 1906 (published as "at Millington"), October 1921 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1905(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete block control. Datum of gage is 215.60 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Nov. 25, 1903 to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Nov. 10, 1921 to Sept. 1, 1923, nonrecording gage at site 200 ft downstream at present datum. Oct. 31, 1923 to July 3, 1925, nonrecording gage and concrete control at present site and datum.

REMARKS.--Water-discharge records fair. No gage-height record Jan. 22-25. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, was discontinued in April 1979 and the installation dismantled.

AVERAGE DISCHARGE.--64 years (water years 1905, 1921-84) 91.2 ft³/s, 22.34 in/yr, adjusted for diversion water years 1970-1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s Jan. 9, 1905, gage height, 7.8 ft from graph based on gage readings, site and datum then in use, from rating curve extended above 1,400 ft³/s on basis of velocity-area study; maximum gage height, 9.73 ft Aug. 29, 1971; minimum discharge, 0.2 ft³/s Sept. 12, 13, 1966, gage height, 3.76 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	1545	1140	8.23	May 31	1040	1040	7.93
Feb. 16	0630	827	7.41	July 7	2100	930	7.60
Apr. 5	2045	*1370	8.87				

Minimum discharge, 7.8 ft³/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	29	224	146	70	175	439	73	987	77	79	15
2	21	26	177	118	58	157	445	67	789	147	68	14
3	21	25	145	98	56	141	387	66	546	97	69	14
4	15	25	190	91	124	118	329	231	361	94	66	52
5	13	23	305	88	166	112	1090	274	240	86	75	58
6	15	20	252	89	167	183	1330	233	171	159	75	25
7	13	20	329	89	161	192	1200	183	134	608	65	22
8	11	20	283	85	135	161	960	161	110	791	54	21
9	11	18	215	65	106	127	599	217	99	669	47	20
10	9.5	22	173	64	88	127	333	183	88	558	43	18
11	8.6	69	141	71	92	112	227	156	78	424	40	18
12	11	69	175	72	141	94	187	135	68	442	47	16
13	21	53	727	65	168	88	162	141	60	351	96	13
14	23	45	1120	62	180	229	149	132	62	251	56	13
15	22	46	1100	59	453	320	182	119	55	193	40	13
16	15	173	957	50	806	347	290	107	48	156	36	13
17	20	178	648	48	710	333	358	95	45	132	36	13
18	16	134	366	45	506	281	297	84	58	118	28	13
19	32	116	221	44	317	229	253	81	74	126	21	12
20	38	97	154	41	229	189	205	84	60	96	22	12
21	23	172	122	40	186	170	169	156	47	175	23	12
22	31	189	208	39	158	207	141	131	42	288	27	11
23	36	149	406	38	137	178	127	116	39	214	26	11
24	160	133	319	36	208	154	129	135	41	162	26	11
25	176	218	266	63	219	136	109	112	127	126	22	11
26	108	289	230	84	190	122	103	98	109	97	20	11
27	88	221	130	107	162	107	94	104	75	125	20	10
28	69	195	125	117	178	109	86	103	74	170	20	13
29	51	317	269	106	232	162	82	285	63	127	20	16
30	39	293	231	88	---	252	77	866	56	110	19	16
31	33	---	180	77	---	357	---	1040	---	93	19	---
TOTAL	1163.1	3384	10388	2285	6403	5669	10539	5968	4806	7262	1305	517
MEAN	37.5	113	335	73.7	221	183	351	193	160	234	42.1	17.2
MAX	176	317	1120	146	806	357	1330	1040	987	791	96	58
MIN	8.6	18	122	36	56	88	77	66	39	77	19	10
CFSM	.68	2.04	6.05	1.33	3.99	3.30	6.34	3.48	2.89	4.22	.76	.31
IN.	.78	2.27	6.98	1.53	4.30	3.81	7.08	4.01	3.23	4.88	.88	.35

CAL YR 1983 TOTAL 53133.8 MEAN 146 MAX 1120 MIN 4.8 CFSM 2.64 IN. 35.68
WTR YR 1984 TOTAL 59689.1 MEAN 163 MAX 1330 MIN 8.6 CFSM 2.94 IN. 40.08

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1962 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
13...	1130	22	269	7.5	15.5	6.1	62	1.9	200	500
FEB										
22...	1030	158	161	7.2	3.0	10.6	78	.9	20	80
MAR										
28...	1030	100	198	7.3	8.0	8.8	75	1.2	33	240
JUN										
07...	1030	137	142	6.9	21.0	3.7	41	--	220	230
JUL										
24...	1100	164	125	7.1	23.0	2.5	29	2.1	2200	1700
AUG										
29...	1030	20	206	7.4	21.5	5.6	63	1.8	350	350

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
13...	85	21	7.9	20	2.5	61	26	30	.20
FEB									
22...	46	11	4.4	12	1.2	24	20	21	<.10
MAR									
28...	56	14	5.2	14	1.3	34	21	24	.10
JUN									
07...	48	12	4.4	8.9	.70	35	13	12	.10
JUL									
24...	44	11	4.0	7.6	.90	36	10	10	<.10
AUG									
29...	67	17	6.0	14	.80	55	19	20	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
13...	14	169	.008	.12	<.050	.71	.83	.190	6.1
FEB									
22...	6.6	120	.007	.30	.010	.39	.69	.050	5.9
MAR									
28...	4.5	117	.008	.38	.090	.42	.80	.080	5.1
JUN									
07...	12	124	.012	.25	.100	.74	.99	.190	9.9
JUL									
24...	12	95	.009	E.11	<.050	.47	--	.200	13
AUG									
29...	16	144	.008	.31	<.050	.57	.88	.110	4.7

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
13...	1130	--	6200	1.2	8.4	--	--	<1	--	--	--	8
JUN												
07...	1030	<.5	--	--	--	20	2	--	<10	60	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
13...	--	10	20	--	50	--	24000	--	50	--	880
JUN											
07...	20	--	--	3	--	1500	--	3	--	120	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	--	<.01	--	20	--	<1	--	100	--	18	<1.0
JUN											
07...	.2	--	5	--	<1	--	40	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	<.1	<1.0	8.8	14	<.1	<.1	.5	<.1	<.1	<.1	<.1
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--

01379500 PASSAIC RIVER NEAR CHATHAM, NJ

LOCATION.--Lat 40°43'31", long 74°23'23", Morris County, Hydrologic Unit 02030103, on left bank 150 ft downstream from Stanley Avenue bridge in Chatham, and 3.0 mi upstream from Canoe Brook.

DRAINAGE AREA.--100 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1903 to December 1911, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Concrete control since Sept. 19, 1938. Datum of gage is 193.51 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1911, nonrecording gage at bridge 150 ft upstream at different datum.

REMARKS.--Water-discharge records good. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, during water years 190[illegible]-79.

AVERAGE DISCHARGE.--55 years (water years 1904-11, 1938-84), 172 ft³/s, 23.40 in/yr, adjusted for diversion water years 1970-79.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft³/s Aug. 2, 1973, gage height, 9.36 ft, from floodmark; minimum, 2.0 ft³/s many days in May and June 1903, August and October 1905, September and October 1906, and September 11, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0145	1580	6.67	May 31	0615	1580	6.67
Dec. 22	1230	912	5.54	July 7	0815	1210	6.04
Feb. 16	2330	1040	5.76	July 11	2000	1110	5.87
Apr. 6	1830	*1930					

Minimum discharge, 20 ft³/s Oct. 11, gage height, 3.25 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	47	440	346	143	393	768	119	1440	112	117	31
2	63	44	338	211	150	278	839	110	1300	170	102	27
3	53	41	257	170	127	232	815	109	1120	163	110	33
4	35	42	405	148	354	196	826	421	928	117	93	75
5	39	41	537	141	395	204	1650	486	727	112	144	71
6	42	37	557	141	363	367	1880	439	539	168	157	54
7	32	34	570	140	339	388	1790	361	369	825	95	36
8	26	33	521	142	325	313	1640	308	212	1050	76	33
9	23	32	438	108	247	239	1410	389	147	1040	66	31
10	21	63	335	109	189	198	1130	371	123	916	60	31
11	21	169	253	120	168	193	839	290	111	866	57	32
12	53	141	423	121	300	160	587	236	98	800	63	32
13	49	99	1160	110	338	166	404	269	105	658	87	30
14	74	75	1480	103	348	476	284	250	97	542	92	26
15	47	97	1490	98	749	605	350	207	81	416	63	28
16	35	454	1410	84	964	657	563	173	70	303	53	27
17	29	425	1260	81	1020	651	585	150	65	216	54	26
18	30	291	1050	76	948	588	563	131	83	201	49	25
19	83	192	811	74	804	502	495	122	133	201	39	25
20	77	149	556	70	616	411	427	145	111	150	39	24
21	54	411	340	67	451	347	344	344	77	327	36	25
22	38	418	557	65	315	379	259	327	65	569	36	23
23	72	302	701	64	237	346	229	220	59	596	53	22
24	387	232	718	64	393	279	260	225	99	454	50	22
25	351	421	602	160	423	231	227	200	332	280	40	23
26	229	496	624	198	368	208	185	166	233	161	34	22
27	139	456	507	204	291	181	162	181	129	301	33	21
28	107	392	362	222	347	196	146	183	98	363	33	32
29	83	501	517	197	451	399	134	672	88	259	33	28
30	64	499	584	165	---	512	127	1290	85	171	33	25
31	53	---	501	140	---	622	---	1510	---	141	33	---
TOTAL	2438	6634	20304	4139	12163	10917	19918	10404	9124	12648	2030	940
MEAN	78.6	221	655	134	419	352	664	336	304	408	65.5	31.3
MAX	387	501	1490	346	1020	657	1880	1510	1440	1050	157	75
MIN	21	32	253	64	127	160	127	109	59	112	33	21
CFSM	.79	2.21	6.55	1.34	4.19	3.52	6.64	3.36	3.04	4.08	.65	.31
IN.	.91	2.47	7.55	1.54	4.52	4.06	7.41	3.87	3.39	4.71	.76	.35

CAL YR 1983 TOTAL 97626 MEAN 267 MAX 1490 MIN 11 CFSM 2.67 IN. 36.32
WTR YR 1984 TOTAL 111659 MEAN 305 MAX 1880 MIN 21 CFSM 3.05 IN. 41.54

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to September 1968.
SUSPENDED-SEDIMENT DISCHARGE: July 1963 to September 1968.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
05...	1130	28	527	7.8	19.0	6.0	65	4.7	1100	1300
FEB										
22...	1330	306	224	7.5	5.0	10.9	85	1.1	20	13
MAR										
28...	1345	181	376	7.6	7.5	11.0	92	2.1	140	79
JUN										
07...	1330	359	204	7.2	21.5	5.0	56	--	2400	330
JUL										
24...	1330	447	165	7.5	23.0	5.1	60	2.4	2200	1700
AUG										
29...	1345	32	526	7.8	23.5	5.9	69	3.0	540	280

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
05...	100	26	9.1	63	3.3	64	48	85	.20
FEB									
22...	57	14	5.4	21	1.3	29	23	38	<.10
MAR									
28...	70	17	6.6	45	1.4	40	37	64	.10
JUN									
07...	55	14	4.9	17	1.2	27	16	25	.10
JUL									
24...	45	11	4.2	13	1.3	35	12	18	<.10
AUG									
29...	99	25	8.9	60	2.5	70	48	79	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	15	294	.213	1.9	.710	1.6	3.5	.650	5.6
FEB									
22...	9.8	144	.016	.58	.520	.62	1.2	.040	5.4
MAR									
28...	8.1	215	.023	.78	.280	E.82	--	.160	4.6
JUN									
07...	12	161	.035	.47	.140	.73	1.2	.250	--
JUL									
24...	12	118	.026	E.39	<.050	.80	--	.240	10
AUG									
29...	16	321	.220	2.4	.500	1.3	3.6	.550	5.1

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT												
05...	1130	<.5	510	.1	4.1	<10	4	<1	<10	230	1	1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
05...	10	<1	<10	10	<10	2400	19	6	<10	200	5

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
05...	<.1	.04	10	<10	<1	<1	30	3	<1	<1	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
05...	<.1	39	13	1.4	6.9	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
05...	1.8	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ

LOCATION.--Lat 40°57'34", long 74°32'24", Morris County, Hydrologic Unit 02030103, on left bank at Picatinny Arsenal, 500 ft upstream from Picatinny Lake, and 0.55 mi downstream from Burnt Meadow Brook.

DRAINAGE AREA.--7.65 mi^2.

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 730 ft, from topographic map.

REMARKS.--Water-discharge records good. Some regulation by Lake Denmark and Green Pond.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 333 ft^3/s Apr. 5, 1984, gage height, 3.51 ft; minimum, 1.9 ft^3/s Aug. 6, 7, Oct. 16, 17, 18, 1983, gage height, 1.34 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	2015	137	2.80	May 30	1100	139	2.81
Apr. 5	1045	*333	3.51	July 7	0400	227	3.17

Minimum discharge, 1.9 ft^3/s Oct. 16, 17, 18, gage height, 1.34 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.7	24	25	7.6	23	31	13	90	14	10	3.0
2	2.7	2.7	22	23	7.0	21	32	12	67	17	9.7	2.8
3	2.5	2.8	21	21	7.2	19	33	12	51	14	9.0	3.6
4	2.4	2.8	27	19	11	17	38	31	40	12	8.5	6.9
5	2.3	2.7	27	18	11	16	248	29	32	15	8.8	4.5
6	2.2	2.6	29	17	11	20	218	28	26	35	8.4	4.7
7	2.2	2.6	34	16	11	19	161	27	22	150	9.0	4.3
8	2.1	2.6	32	15	9.8	17	124	29	18	103	10	4.1
9	2.1	2.6	29	13	9.1	17	93	29	15	78	9.1	3.8
10	2.1	3.2	27	13	8.5	16	71	25	12	60	8.4	3.9
11	2.0	4.5	24	13	9.3	14	56	21	10	51	7.8	4.3
12	2.2	3.9	32	12	11	12	46	21	8.7	48	7.4	4.0
13	2.3	3.4	106	11	11	14	35	22	7.4	38	7.2	3.8
14	2.5	3.1	126	11	13	32	29	29	6.8	31	6.7	3.7
15	2.1	3.6	101	11	45	33	32	26	6.1	26	6.3	3.7
16	2.0	6.6	79	9.9	58	36	41	24	5.2	30	6.0	3.7
17	1.9	5.2	62	9.3	52	38	46	22	4.9	27	5.7	3.5
18	1.9	4.7	50	9.0	44	37	46	20	5.3	30	5.3	3.4
19	4.2	4.4	41	9.4	37	36	43	19	5.4	27	4.4	3.3
20	2.9	5.6	33	8.8	34	33	38	19	4.9	23	4.4	3.2
21	2.3	11	26	8.2	29	38	33	19	4.3	24	3.8	3.1
22	2.1	9.2	35	8.0	25	42	29	17	3.8	23	3.6	3.1
23	3.1	8.6	38	7.4	22	36	27	16	3.5	20	3.9	3.1
24	10	9.5	36	8.0	32	32	25	16	5.3	17	3.6	3.1
25	6.3	16	31	9.6	31	29	23	15	13	14	3.4	3.2
26	4.8	16	27	9.5	29	28	21	13	9.0	12	3.2	3.0
27	4.2	15	22	9.6	26	24	19	12	7.8	18	3.1	2.9
28	3.7	17	27	9.4	28	26	17	12	6.8	16	3.1	3.1
29	3.4	28	35	8.9	26	32	16	61	6.0	14	3.0	3.0
30	3.0	26	32	8.3	---	31	14	129	6.1	13	3.0	2.8
31	2.9	---	29	8.4	---	30	---	121	--	12	3.4	---
TOTAL	93.1	228.6	1264	379.7	655.5	818	1685	889	503.[illegible]	1012	189.2	108.6
MEAN	3.00	7.62	40.8	12.2	22.6	26.4	56.2	28.7	16.8	32.6	6.10	3.62
MAX	10	28	126	25	58	42	248	129	90	150	10	6.9
MIN	1.9	2.6	21	7.4	7.0	12	14	12	3.5	12	3.0	2.8
CFSM	.39	.00	5.33	1.59	2.95	3.45	7.35	3.75	2.20	4.26	.80	.47
IN.	.45	1.11	6.15	1.85	3.19	3.98	8.19	4.32	2.45	4.92	.92	.53

CAL YR 1983 TOTAL 7518.3 MEAN 20.6 MAX 132 MIN 1.9 CFSM 2.69 IN. 36.56
WTR YR 1984 TOTAL 7826.0 MEAN 21.4 MAX 248 MIN 1.9 CFSM 2.80 IN. 38.05

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1983 to September 1984.
pH: November 1983 to September 1984.
WATER TEMPERATURE: November 1983 to September 1984.
DISSOLVED OXYGEN: November 1983 to September 1984.

INSTRUMENTATION.--Water-quality monitor since November 1983.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR THE CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 109 micromhos Feb. 4; minimum, 48 micromhos July 13, 14, 16, 17.
pH: Maximum, 8.2 on Aug. 28, 30, 31 and Sept. 3; minimum, 6.3 on Apr. 13.
WATER TEMPERATURE: Maximum, 24.5°C on June 11 and Aug. 15, 16; minimum, 0°C on many days during the winter months.
DISSOLVED OXYGEN: Maximum, 14.6 mg/L on Jan. 12, 13; minimum, 7.4 mg/L on Aug. 30, 31.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	71	69	70	69	68	69	64	63	64
2	---	---	---	70	69	70	69	68	69	64	63	63
3	---	---	---	71	66	68	68	67	68	63	62	63
4	---	---	---	69	65	67	78	67	72	64	62	63
5	---	---	---	67	65	66	71	68	69	64	63	63
6	---	---	---	66	65	65	76	68	69	64	62	63
7	---	---	---	66	64	65	73	66	68	63	63	63
8	---	---	---	65	64	65	66	65	66	64	63	63
9	---	---	---	66	65	66	65	64	64	64	63	64
10	---	---	---	89	65	69	65	64	64	64	63	64
11	---	---	---	89	79	83	63	62	63	65	63	64
12	---	---	---	80	74	76	76	63	67	66	64	65
13	---	---	---	74	72	73	72	59	64	66	65	65
14	---	---	---	72	70	71	60	58	59	66	65	65
15	---	---	---	84	70	72	58	57	57	66	64	65
16	---	---	---	102	81	91	59	57	58	66	65	66
17	---	---	---	81	76	78	58	56	57	67	65	66
18	---	---	---	76	73	74	57	56	56	67	65	66
19	---	---	---	74	72	73	57	55	56	67	65	66
20	---	---	---	74	70	72	57	56	57	67	66	67
21	---	---	---	89	68	78	---	---	---	69	66	67
22	---	---	---	73	70	72	---	---	---	69	67	68
23	---	---	---	72	69	70	---	---	---	69	67	68
24	---	---	---	78	69	72	---	---	---	85	67	72
25	---	---	---	82	71	77	---	---	---	101	74	82
26	---	---	---	73	70	72	---	---	---	78	73	74
27	---	---	---	72	69	70	---	---	---	76	71	73
28	---	---	---	75	69	71	---	---	---	73	71	72
29	---	---	---	79	68	73	---	---	---	71	70	71
30	71	70	70	69	67	68	---	---	---	72	70	71
31	71	68	69	---	---	---	68	63	64	71	70	71
MONTH	71	68	70	102	64	72	78	55	64	101	62	67

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	72	70	71	66	64	65	68	63	65	61	60	60
2	72	71	72	66	64	65	71	64	67	81	60	69
3	92	71	74	65	63	64	71	66	68	76	60	64
4	109	83	91	65	63	64	74	66	68	77	60	66
5	83	76	79	72	64	67	74	52	58	60	57	58
6	76	75	75	75	69	72	56	54	55	65	57	60
7	75	73	74	73	67	69	56	54	55	58	56	57
8	78	73	74	72	70	71	59	55	57	63	56	59
9	79	74	75	73	70	71	59	57	58	59	57	58
10	80	74	76	71	70	71	58	57	58	58	57	57
11	90	76	81	72	71	72	58	57	58	58	56	57
12	88	82	85	72	70	71	58	56	57	63	57	58
13	86	80	83	74	68	70	59	57	58	62	56	58
14	90	83	86	91	77	83	60	55	57	57	54	55
15	101	72	86	77	73	75	60	57	58	57	54	55
16	72	69	71	84	71	75	66	57	61	59	54	56
17	70	66	68	74	71	73	58	56	57	55	53	54
18	66	64	65	72	70	71	58	55	56	55	54	54
19	66	64	65	72	70	71	57	56	56	56	54	55
20	66	65	66	70	69	70	57	56	56	60	55	56
21	67	64	66	79	69	71	57	56	56	59	56	57
22	67	63	65	73	68	69	57	56	57	57	53	56
23	68	61	64	67	66	66	59	57	58	71	56	58
24	78	64	69	66	65	66	58	57	58	61	57	58
25	66	63	64	66	65	65	58	57	58	58	54	57
26	66	63	65	66	65	65	70	57	59	59	54	57
27	67	65	66	66	65	66	60	58	59	60	57	58
28	73	65	68	68	65	66	60	59	60	71	57	62
29	69	65	67	66	63	64	61	57	59	72	54	65
30	---	---	---	63	62	62	61	60	60	56	53	55
31	---	---	---	64	61	62	---	---	---	56	55	55
MONTH	109	61	73	91	61	69	74	52	59	81	53	58

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	56	54	55	---	---	---	55	53	54	59	57	58
2	55	53	54	---	---	---	55	54	55	59	57	58
3	54	53	53	---	---	---	56	54	55	73	56	60
4	53	50	52	---	---	---	56	55	55	88	65	71
5	52	49	51	---	---	---	57	55	56	65	61	63
6	53	51	52	---	---	---	55	53	54	62	59	60
7	54	50	52	---	---	---	59	52	54	60	57	59
8	54	50	52	---	---	---	55	51	53	59	57	58
9	54	51	52	---	---	---	53	52	53	59	57	58
10	54	51	53	---	---	---	54	53	53	61	57	58
11	55	52	53	---	---	---	54	53	54	61	57	59
12	55	51	53	51	49	50	55	53	54	59	56	58
13	55	52	54	50	48	49	55	53	54	58	56	57
14	57	53	55	50	48	49	54	53	54	59	57	58
15	55	53	54	50	49	50	55	53	54	59	58	59
16	55	54	55	56	48	50	55	53	54	60	58	59
17	66	55	56	49	48	49	54	53	54	59	57	58
18	58	57	57	55	49	51	54	52	53	59	57	58
19	58	53	55	51	49	50	56	54	55	59	57	58
20	56	53	55	51	49	50	59	55	57	59	57	58
21	56	54	55	56	50	52	56	55	56	59	57	58
22	56	54	55	53	51	52	56	54	55	58	57	58
23	57	55	56	52	51	52	59	56	57	59	57	58
24	79	56	59	53	51	52	57	55	56	60	57	59
25	76	54	59	53	51	52	57	55	56	58	56	58
26	54	53	53	53	52	52	57	54	56	58	57	58
27	54	53	54	65	52	57	58	55	57	58	56	57
28	55	54	55	56	54	54	59	56	57	58	57	58
29	---	---	---	55	53	54	59	57	58	58	56	57
30	---	---	---	55	54	54	59	57	58	58	56	57
31	---	---	---	55	53	54	66	58	61	---	---	---
MONTH	79	49	54	65	48	52	66	51	55	88	56	59
YEAR	109	48	62									

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	7.1	7.0	7.1	---	---	---
2				---	---	---	7.2	7.1	7.1	---	---	---
3				---	---	---	7.2	7.1	7.1	---	---	---
4				7.1	7.0	7.1	7.2	7.1	7.2	---	---	---
5				7.1	7.1	7.1	7.2	7.1	7.2	---	---	---
6				7.2	7.1	7.1	7.2	7.1	7.2	---	---	---
7				7.2	7.1	7.1	7.2	7.1	7.2	---	---	---
8				7.2	7.1	7.2	7.2	7.1	7.2	---	---	---
9				7.3	7.2	7.2	7.2	7.1	7.1	---	---	---
10				7.3	7.0	7.1	7.2	7.1	7.1	---	---	---
11				7.0	7.0	7.0	7.2	7.1	7.1	---	---	---
12				7.0	7.0	7.0	7.1	7.1	7.1	---	---	---
13				7.0	7.0	7.0	7.1	7.0	7.0	---	---	---
14				7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.7	6.8
15				7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.8	6.8
16				7.1	7.0	7.0	7.1	7.0	7.1	6.9	6.8	6.8
17				7.0	7.0	7.0	7.1	7.0	7.1	6.9	6.8	6.8
18				7.0	7.0	7.0	7.1	7.0	7.0	6.9	6.8	6.8
19				6.9	6.9	6.9	7.1	7.0	7.1	6.9	6.8	6.8
20				6.9	6.8	6.9	---	---	---	6.8	6.7	6.8
21				6.9	6.8	6.9	---	---	---	6.9	6.7	6.8
22				6.9	6.8	6.9	---	---	---	6.8	6.6	6.8
23				6.9	6.9	6.9	---	---	---	6.8	6.7	6.8
24				6.9	6.9	6.9	---	---	---	6.8	6.8	6.8
25				7.0	6.9	6.9	---	---	---	6.9	6.8	6.8
26				6.9	6.9	6.9	---	---	---	6.9	6.8	6.8
27				6.9	6.9	6.9	---	---	---	6.9	6.8	6.8
28				7.0	6.9	6.9	---	---	---	6.9	6.8	6.8
29				7.0	7.0	7.0	---	---	---	6.9	6.8	6.8
30				7.0	7.0	7.0	---	---	---	6.9	6.8	6.8
31				---	---	---	---	---	---	6.9	6.8	6.9
MONTH				7.3	6.8	7.0	7.2	7.0	7.1	6.9	6.6	6.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.9	6.8	6.8	6.9	6.8	6.8	6.9	6.8	6.8			
2	6.8	6.8	6.8	6.9	6.8	6.8	6.9	6.8	6.8			
3	6.8	6.8	6.8	6.9	6.7	6.8	6.9	6.8	6.8			
4	6.9	6.8	6.8	6.8	6.8	6.8	7.0	6.8	6.8			
5	6.8	6.8	6.8	6.9	6.8	6.9	6.9	6.5	6.7			
6	6.8	6.8	6.8	6.9	6.9	6.9	6.7	6.6	6.6			
7	6.8	6.7	6.8	6.9	6.7	6.9	6.6	6.6	6.6			
8	6.8	6.7	6.8	6.8	6.7	6.8	6.7	6.6	6.6			
9	6.8	6.7	6.8	6.9	6.8	6.8	6.6	6.6	6.6			
10	6.8	6.7	6.8	6.8	6.8	6.8	6.6	6.5	6.6			
11	6.8	6.8	6.8	7.0	6.8	6.8	6.6	6.5	6.5			
12	6.9	6.8	6.8	6.8	6.8	6.8	6.5	6.4	6.5			
13	6.8	6.8	6.8	6.9	6.8	6.8	6.4	6.3	6.4			
14	6.9	6.8	6.9	6.9	6.8	6.8	6.4	6.4	6.4			
15	6.8	6.6	6.7	6.8	6.8	6.8	6.5	6.4	6.5			
16	6.6	6.6	6.6	6.8	6.8	6.8	6.7	6.5	6.6			
17	6.6	6.5	6.6	6.8	6.8	6.8	6.6	6.5	6.5			
18	6.6	6.5	6.6	6.8	6.8	6.8	6.6	6.5	6.6			
19	6.7	6.6	6.7	6.8	6.8	6.8	6.6	6.5	6.5			
20	6.7	6.7	6.7	6.8	6.8	6.8	6.6	6.5	6.6			
21	6.8	6.7	6.7	7.0	6.8	6.8	6.6	6.5	6.5			
22	6.8	6.7	6.8	6.9	6.8	6.8	6.6	6.5	6.5			
23	6.9	6.7	6.8	6.8	6.8	6.8	6.6	6.5	6.5			
24	6.8	6.7	6.8	6.8	6.7	6.8	6.7	6.4	6.6			
25	6.8	6.7	6.7	6.9	6.7	6.8	6.6	6.6	6.6			
26	6.8	6.8	6.8	7.0	6.8	6.9	6.6	6.5	6.6			
27	6.9	6.8	6.9	7.2	6.8	6.9	6.7	6.5	6.6			
28	6.9	6.8	6.9	7.4	7.0	7.1	---	---	---			
29	6.9	6.8	6.8	7.2	6.9	7.0	---	---	---			
30	---	---	---	6.8	6.8	6.8	---	---	---			
31	---	---	---	6.8	6.7	6.8	---	---	---			
MONTH	6.9	6.5	6.8	7.4	6.7	6.8	7.0	6.3	6.6			

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	7.1	7.0	7.1	8.0	7.4	7.7
2				---	---	---	7.1	7.1	7.1	7.6	7.4	7.5
3				---	---	---	7.2	7.1	7.1	8.2	7.4	7.7
4				---	---	---	7.2	7.1	7.2	7.9	7.4	7.5
5				---	---	---	7.4	7.2	7.3	7.4	7.3	7.4
6				---	---	---	7.5	7.3	7.4	7.4	7.2	7.3
7				---	---	---	7.7	7.4	7.5	7.3	7.2	7.3
8				---	---	---	7.7	7.5	7.6	7.3	7.0	7.2
9				---	---	---	7.7	7.5	7.6	7.3	6.9	7.1
10				---	---	---	7.7	7.6	7.7	7.2	7.1	7.2
11				---	---	---	7.8	7.5	7.7	7.4	7.2	7.3
12				7.1	7.0	7.1	7.8	7.6	7.7	7.3	7.3	7.3
13				7.2	7.1	7.2	7.8	7.5	7.6	7.3	7.2	7.2
14				7.3	7.2	7.2	7.7	7.4	7.6	7.3	7.1	7.2
15				7.3	7.2	7.2	7.8	7.4	7.6	7.2	7.1	7.1
16				7.2	7.1	7.2	7.8	7.5	7.6	7.0	6.7	6.9
17				7.2	7.1	7.2	7.8	7.4	7.6	7.2	6.9	7.0
18				7.2	7.1	7.2	7.8	7.5	7.7	7.2	7.1	7.1
19				7.3	7.1	7.2	7.8	7.3	7.6	7.2	7.1	7.1
20				7.3	7.2	7.2	7.9	7.1	7.6	7.2	7.0	7.1
21				7.3	7.2	7.2	7.9	7.0	7.3	7.2	7.0	7.1
22				7.3	7.2	7.2	8.0	7.1	7.5	7.2	7.1	7.1
23				7.2	7.2	7.2	8.0	7.2	7.6	7.2	7.1	7.1
24				7.3	7.2	7.2	7.6	7.1	7.3	7.2	7.0	7.1
25				7.3	7.2	7.2	8.0	7.1	7.4	7.2	7.1	7.1
26				7.2	7.1	7.2	8.0	7.1	7.5	7.2	7.0	7.1
27				7.2	7.1	7.1	7.9	7.2	7.5	7.3	7.1	7.2
28				7.2	7.1	7.2	8.2	7.2	7.7	7.2	7.1	7.2
29				7.3	7.2	7.2	8.1	7.8	8.0	7.2	7.1	7.2
30				7.2	7.1	7.1	8.2	7.8	8.0	7.2	7.1	7.2
31				7.1	7.1	7.1	8.2	7.8	8.1	---	---	---
MONTH				7.3	7.0	7.2	8.2	7.0	7.5	8.2	6.7	7.2

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.0	6.0	7.5	4.5	3.5	4.0	2.0	1.5	1.5
2	---	---	---	9.5	6.5	8.0	3.5	3.0	3.5	2.0	1.5	1.5
3	---	---	---	9.5	8.0	9.5	3.5	3.0	3.0	2.0	1.5	2.0
4	---	---	---	9.0	6.0	7.5	3.0	2.5	3.0	2.0	1.5	2.0
5	---	---	---	7.0	5.0	6.0	3.5	2.5	3.0	2.5	1.5	2.0
6	---	---	---	7.5	5.5	6.5	4.5	3.5	3.5	2.5	1.5	2.0
7	---	---	---	8.5	6.5	7.5	4.5	3.0	3.5	2.0	.5	1.5
8	---	---	---	8.5	5.5	7.0	3.0	2.0	2.5	1.5	.5	1.0
9	---	---	---	9.5	6.5	7.5	2.5	2.0	2.0	2.0	1.0	1.0
10	---	---	---	8.5	7.0	7.5	3.5	2.5	3.0	2.5	.5	1.5
11	---	---	---	9.0	8.5	8.5	3.0	2.5	2.5	1.5	.5	1.0
12	---	---	---	8.5	6.0	7.0	3.5	2.5	2.5	1.0	.0	.5
13	---	---	---	6.0	5.0	5.5	5.0	3.5	4.5	1.0	.0	.5
14	---	---	---	6.5	5.0	5.5	5.0	4.5	4.5	1.5	.5	1.0
15	---	---	---	6.5	6.0	6.0	5.0	4.5	4.5	1.0	.0	.5
16	---	---	---	8.0	7.0	7.5	4.5	4.0	4.5	.5	.0	.5
17	---	---	---	7.0	6.0	6.5	4.0	3.0	3.5	1.0	.0	.5
18	---	---	---	6.5	5.5	6.0	3.0	2.0	2.5	1.0	.5	.5
19	---	---	---	7.5	6.0	6.5	2.0	1.0	1.5	1.5	.0	1.0
20	---	---	---	8.0	6.5	7.5	1.0	.0	.5	.5	.0	.0
21	---	---	---	8.5	8.0	8.0	---	---	---	.0	.0	.0
22	---	---	---	8.5	7.5	8.0	---	---	---	.0	.0	.0
23	---	---	---	8.0	7.0	7.5	---	---	---	.5	.0	.0
24	---	---	---	8.5	7.5	8.0	---	---	---	1.0	.5	.5
25	---	---	---	8.5	6.0	7.0	---	---	---	1.5	1.0	1.0
26	---	---	---	6.5	5.5	6.0	---	---	---	2.0	1.0	1.5
27	---	---	---	6.0	5.5	5.5	---	---	---	2.5	1.0	1.5
28	---	---	---	5.5	5.0	5.5	---	---	---	2.0	1.0	1.5
29	---	---	---	6.0	5.0	5.5	---	---	---	2.0	1.0	1.5
30	9.0	6.5	7.5	5.0	4.5	5.0	---	---	---	2.5	1.0	1.5
31	9.0	6.0	7.5	---	---	---	2.0	1.0	1.5	2.5	.5	1.5
MONTH	9.0	6.0	7.5	9.5	4.5	7.0	5.0	.0	3.0	2.5	.0	1.0

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.0	.5	1.5	.0	.5	6.0	2.0	3.5	15.5	11.5	13.0
2	2.0	.0	1.0	1.5	.0	.5	6.0	3.0	4.5	15.5	11.5	13.0
3	2.5	.5	1.5	2.0	.0	.5	8.0	4.0	6.0	12.5	11.0	12.0
4	3.0	2.0	2.0	3.0	.0	1.0	6.5	6.0	6.0	13.5	11.5	12.5
5	2.5	1.5	2.0	2.0	1.5	1.5	7.0	6.0	6.5	14.0	12.0	12.5
6	3.5	2.0	2.5	3.0	2.0	2.5	7.5	7.0	7.5	15.0	12.0	13.5
7	2.5	.5	1.5	4.0	1.5	2.0	7.5	7.0	7.0	15.5	13.0	14.0
8	2.5	.5	1.0	3.5	1.0	2.0	8.5	6.5	7.5	14.0	13.0	13.5
9	3.0	1.0	1.5	3.5	.5	2.0	8.5	6.0	7.0	14.0	12.5	13.0
10	3.5	1.0	2.0	3.0	1.0	1.5	9.0	6.5	7.5	13.5	12.0	12.5
11	3.0	2.0	2.5	3.5	.5	1.5	10.0	7.0	8.5	15.5	12.0	13.5
12	3.5	2.0	2.5	3.5	.5	1.5	11.5	8.5	10.0	14.5	13.0	13.5
13	4.5	2.0	3.0	1.5	.5	1.0	11.0	10.0	10.5	16.0	12.5	14.0
14	4.0	3.0	3.5	3.0	1.5	2.0	10.0	8.5	9.0	14.0	12.5	13.5
15	3.5	3.0	3.0	4.5	1.5	2.5	8.5	8.5	8.5	13.5	11.5	12.5
16	4.0	3.0	3.5	4.5	2.5	3.0	8.5	8.0	8.0	13.0	11.0	12.0
17	4.0	3.5	3.5	4.0	2.5	3.5	10.5	8.0	9.0	13.5	10.5	12.0
18	4.5	3.5	4.0	4.0	3.0	3.5	11.5	8.5	10.0	12.0	11.0	11.5
19	3.5	3.5	3.5	4.5	3.0	3.5	10.5	9.5	10.0	14.0	11.5	12.5
20	4.5	3.5	4.0	5.5	3.0	4.5	11.0	9.5	10.0	15.0	12.5	13.5
21	5.0	3.0	4.0	5.0	4.0	4.5	12.0	9.0	10.0	16.5	13.0	14.5
22	5.5	3.0	4.0	4.5	3.5	4.0	11.0	8.5	9.5	18.5	15.0	16.5
23	5.0	3.0	4.0	4.5	3.5	4.0	9.5	9.0	9.0	18.0	15.5	17.0
24	5.5	4.0	4.5	5.5	2.5	4.0	9.5	8.5	9.0	18.0	15.0	16.0
25	5.0	3.5	4.0	4.5	4.0	4.0	10.0	8.5	9.0	19.0	15.0	16.5
26	4.0	2.5	3.0	6.5	3.5	4.5	13.0	8.5	10.5	19.5	16.5	17.5
27	3.0	2.0	2.5	7.0	3.5	5.0	15.0	10.0	12.0	19.0	16.5	17.5
28	2.5	2.0	2.0	5.5	3.0	4.5	13.5	11.0	12.5	17.0	16.0	16.5
29	2.0	1.0	1.5	3.0	.5	2.0	16.5	11.5	13.5	16.0	15.0	15.5
30	---	---	---	2.5	1.5	2.0	14.0	12.5	13.5	15.5	15.5	15.5
31	---	---	---	4.5	1.5	3.0	---	---	---	16.0	15.0	15.5
MONTH	5.5	.0	2.5	7.0	.0	2.5	16.5	2.0	9.0	19.5	10.5	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	14.5	16.0	---	---	---	22.0	19.5	20.5	20.5	18.0	19.0
2	16.5	15.5	16.0	---	---	---	22.5	20.5	21.5	20.5	18.0	19.0
3	16.0	15.5	15.5	---	---	---	22.5	21.0	21.5	22.0	19.0	20.0
4	17.0	15.0	16.0	---	---	---	23.5	21.0	22.0	19.5	17.5	18.5
5	18.5	15.5	17.0	---	---	---	22.5	21.5	22.0	18.5	16.5	17.5
6	19.0	17.0	18.0	---	---	---	23.5	21.0	22.0	17.5	15.0	16.0
7	20.5	18.0	19.0	---	---	---	23.5	21.5	22.0	17.5	14.0	15.5
8	22.0	19.0	20.5	---	---	---	24.0	21.0	22.5	18.0	14.5	16.0
9	23.0	20.0	21.0	---	---	---	23.0	22.0	22.5	18.5	15.0	16.5
10	24.0	21.0	22.0	---	---	---	22.5	22.0	22.0	19.0	16.5	17.5
11	24.5	22.0	23.0	---	---	---	23.0	21.5	22.0	20.0	17.5	18.5
12	24.0	20.5	22.0	22.0	20.5	21.0	22.0	22.0	22.0	20.0	18.0	19.0
13	24.0	20.5	22.0	22.5	21.0	22.0	23.5	21.5	22.5	20.0	16.5	18.0
14	23.5	21.0	22.0	23.5	21.5	22.5	24.0	21.5	22.5	20.0	19.0	19.5
15	21.0	18.5	20.0	23.5	22.0	22.5	24.5	22.0	23.0	19.0	16.0	17.5
16	21.0	17.5	18.5	23.5	22.0	23.0	24.5	21.5	22.5	16.0	14.0	15.0
17	19.0	18.5	18.5	23.5	22.0	22.5	24.0	21.0	22.0	16.5	13.5	15.0
18	19.0	18.0	18.5	22.5	21.5	22.0	22.5	20.0	21.0	16.5	13.0	14.5
19	22.0	18.5	20.0	22.0	20.5	21.5	21.5	20.0	21.0	17.0	13.5	15.0
20	22.0	18.5	20.0	22.0	20.5	21.0	21.5	19.5	20.5	18.5	15.5	16.5
21	21.5	18.0	19.5	21.0	20.5	21.0	21.5	18.0	19.5	17.5	15.5	16.5
22	21.5	17.5	19.0	23.0	20.5	21.5	21.5	17.5	19.5	17.5	14.5	16.0
23	21.0	18.0	19.5	23.0	21.5	22.0	21.5	19.5	20.5	19.0	15.5	17.0
24	20.0	17.5	19.0	23.0	21.5	22.0	20.5	18.5	19.5	19.5	18.0	18.5
25	20.5	17.5	19.0	22.5	20.0	21.0	21.5	18.5	19.5	20.5	18.0	19.0
26	20.5	18.5	19.0	22.0	19.0	20.5	21.5	18.0	19.5	19.0	15.0	17.5
27	21.5	18.0	19.5	20.5	19.0	19.5	21.0	18.0	19.5	15.0	13.5	14.0
28	21.5	19.5	20.5	20.0	18.5	19.5	21.5	18.5	20.0	13.5	12.5	13.0
29	---	---	---	20.5	18.5	19.5	21.5	20.5	21.0	14.5	13.0	13.5
30	---	---	---	21.0	19.0	20.0	22.5	20.5	21.5	14.5	12.5	13.5
31	---	---	---	22.0	19.0	20.5	22.0	19.5	21.0	---	---	---
MONTH	24.5	14.5	19.5	23.5	18.5	21.5	24.5	17.5	21.0	22.0	12.5	17.0
YEAR	24.5	.0	10.5									

PASSAIC RIVER BASIN

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	11.0	10.3	10.7	12.6	12.2	12.4	13.7	13.6	13.7
2	---	---	---	11.0	10.3	10.7	12.9	12.6	12.7	13.7	13.5	13.6
3	---	---	---	10.7	10.3	10.6	12.9	12.7	12.8	13.6	13.5	13.6
4	---	---	---	11.2	10.3	10.9	12.9	12.6	12.7	13.6	13.4	13.5
5	---	---	---	11.5	10.8	11.2	12.8	12.6	12.7	13.5	13.3	13.4
6	---	---	---	11.3	10.6	11.0	12.6	11.8	12.3	13.5	13.3	13.4
7	---	---	---	10.9	10.4	10.7	12.7	11.9	12.3	13.9	13.4	13.6
8	---	---	---	11.2	10.4	10.7	13.1	12.7	12.9	14.1	13.8	13.9
9	---	---	---	10.8	10.0	10.5	13.2	12.9	13.0	14.1	13.9	14.0
10	---	---	---	10.7	9.9	10.3	13.0	12.7	12.8	14.0	13.6	13.8
11	---	---	---	10.0	9.8	9.9	13.1	12.9	13.0	14.4	13.9	14.1
12	---	---	---	10.9	10.1	10.6	12.9	12.4	12.7	14.6	14.4	14.5
13	---	---	---	11.6	11.0	11.2	12.4	12.0	12.1	14.6	14.1	14.4
14	---	---	---	11.6	11.0	11.3	12.2	12.0	12.1	14.2	13.8	14.0
15	---	---	---	11.4	11.0	11.2	12.3	12.2	12.2	14.3	14.0	14.2
16	---	---	---	11.0	10.7	10.9	12.8	12.3	12.6	14.3	14.0	14.2
17	---	---	---	11.4	11.0	11.2	13.3	12.8	13.0	14.2	13.8	14.0
18	---	---	---	12.0	11.5	11.7	13.6	13.3	13.5	14.2	13.8	14.0
19	---	---	---	11.8	11.1	11.5	14.2	13.6	13.8	14.2	13.7	13.9
20	---	---	---	11.6	11.0	11.3	---	---	---	14.3	14.1	14.2
21	---	---	---	11.3	10.9	11.1	---	---	---	14.3	14.2	14.3
22	---	---	---	11.4	11.0	11.2	---	---	---	14.3	14.2	14.2
23	---	---	---	11.6	11.2	11.4	---	---	---	14.3	14.0	14.2
24	---	---	---	11.3	10.9	11.1	---	---	---	14.1	13.6	13.8
25	---	---	---	11.8	10.8	11.3	---	---	---	13.6	13.4	13.5
26	---	---	---	12.0	11.7	11.8	---	---	---	13.7	13.4	13.6
27	---	---	---	12.0	11.8	11.9	---	---	---	13.6	13.0	13.4
28	---	---	---	12.1	11.8	12.0	---	---	---	13.7	13.3	13.5
29	---	---	---	11.9	11.6	11.7	---	---	---	13.6	13.3	13.4
30	10.5	9.9	10.2	12.2	12.0	12.1	---	---	---	13.6	13.1	13.4
31	10.9	10.1	10.5	---	---	---	13.9	13.6	13.8	13.7	13.1	13.3
MONTH	10.9	9.9	10.4	12.2	9.8	11.1	14.2	11.8	12.8	14.6	13.0	13.8

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.9	13.5	13.8	13.9	13.5	13.7	12.5	11.6	12.1	9.7	9.1	9.4
2	14.0	13.4	13.8	14.0	13.5	13.8	12.3	11.6	11.9	9.8	9.1	9.4
3	13.8	13.1	13.4	14.0	13.4	13.8	12.0	11.2	11.6	9.7	9.3	9.5
4	13.2	12.9	13.1	14.0	13.3	13.7	11.5	11.3	11.4	9.4	9.0	9.2
5	13.2	12.9	13.0	13.7	13.3	13.5	11.4	10.9	11.1	9.5	9.2	9.3
6	13.3	12.8	13.1	13.3	13.2	13.3	11.0	10.9	10.9	9.6	9.0	9.3
7	13.7	13.2	13.4	13.6	12.9	13.3	11.2	11.0	11.1	9.4	9.0	9.2
8	13.8	13.3	13.6	13.6	13.0	13.4	11.4	10.9	11.2	9.1	9.0	9.1
9	13.6	13.2	13.5	13.6	13.0	13.3	11.7	11.0	11.3	9.4	9.1	9.2
10	13.8	13.1	13.5	13.7	13.1	13.5	11.5	10.7	11.1	9.5	9.2	9.3
11	13.4	13.2	13.3	13.7	12.9	13.3	11.2	10.5	10.8	9.5	8.9	9.2
12	13.5	13.1	13.3	13.8	13.0	13.5	10.9	10.2	10.5	9.1	8.9	9.1
13	13.5	13.0	13.3	13.5	13.1	13.4	10.5	10.3	10.4	9.4	8.8	9.1
14	13.2	12.9	13.1	13.2	12.9	13.0	10.8	10.5	10.7	9.3	8.9	9.1
15	13.2	13.0	13.1	13.2	12.5	12.9	10.9	10.8	10.9	9.6	9.2	9.4
16	13.2	13.1	13.1	12.9	12.3	12.6	10.9	10.7	10.8	9.7	9.4	9.5
17	13.1	12.9	13.0	12.7	12.4	12.6	10.9	10.4	10.7	9.9	9.4	9.6
18	13.0	12.8	12.9	12.7	12.4	12.5	10.8	10.2	10.5	9.8	9.5	9.6
19	13.0	12.8	12.9	12.6	12.1	12.3	10.6	10.5	10.6	9.6	9.2	9.4
20	12.9	12.7	12.8	12.4	11.6	12.0	10.8	10.5	10.6	9.4	9.1	9.2
21	12.9	12.5	12.8	11.8	11.6	11.7	10.8	10.3	10.6	9.4	9.0	9.2
22	13.0	12.5	12.8	12.0	11.7	11.8	11.1	10.5	10.8	9.1	8.5	8.8
23	13.0	12.4	12.7	12.2	11.8	12.0	10.8	10.6	10.7	8.8	8.6	8.7
24	12.6	12.2	12.4	12.4	11.6	12.0	10.7	10.5	10.6	9.1	8.7	8.9
25	12.8	12.3	12.5	11.9	11.7	11.8	10.8	10.6	10.7	9.0	8.5	8.8
26	13.3	12.9	13.1	12.0	11.3	11.6	10.9	10.0	10.5	8.7	8.3	8.6
27	13.6	13.2	13.3	11.9	11.1	11.5	10.6	9.6	10.0	8.8	8.5	8.6
28	13.3	12.9	13.1	11.9	11.4	11.6	10.0	9.6	9.8	8.8	8.6	8.7
29	13.5	13.0	13.3	12.4	11.8	12.2	10.0	9.1	9.5	9.0	8.8	8.9
30	---	---	---	12.5	12.4	12.4	9.6	9.1	9.3	9.1	9.0	9.0
31	---	---	---	12.6	11.9	12.3	---	---	---	9.1	8.9	9.0
MONTH	14.0	12.2	13.1	14.0	11.1	12.7	12.5	9.1	10.8	9.9	8.3	9.1

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	8.8	9.0	---	---	---	8.4	8.0	8.2	8.3	7.7	8.0
2	9.0	8.8	8.9	---	---	---	8.2	7.9	8.0	8.2	7.6	8.0
3	9.1	8.9	9.1	---	---	---	8.1	7.8	8.0	---	---	---
4	9.2	9.0	9.1	---	---	---	8.1	7.7	7.9	---	---	---
5	9.2	8.8	9.0	---	---	---	8.0	7.8	7.9	---	---	---
6	8.9	8.6	8.8	---	---	---	8.1	7.7	7.9	---	---	---
7	8.8	8.5	8.6	---	---	---	8.0	7.6	7.8	---	---	---
8	8.6	8.3	8.4	---	---	---	8.0	7.6	7.8	---	---	---
9	8.4	8.2	8.3	---	---	---	7.9	7.7	7.8	---	---	---
10	8.3	8.0	8.2	---	---	---	7.9	7.8	7.9	---	---	---
11	8.3	8.0	8.1	---	---	---	8.1	7.7	7.9	---	---	---
12	8.6	8.1	8.3	8.1	7.9	8.0	8.0	7.8	7.9	---	---	---
13	8.4	8.0	8.2	8.1	7.9	8.0	8.1	7.7	7.9	---	---	---
14	8.3	8.1	8.2	8.1	7.9	8.0	8.0	7.5	7.8	---	---	---
15	8.8	8.3	8.6	8.0	7.8	7.9	7.9	7.6	7.7	---	---	---
16	9.1	8.6	8.8	7.9	7.7	7.8	8.1	7.5	7.8	---	---	---
17	8.9	8.7	8.8	8.0	7.8	7.9	8.1	7.6	7.9	---	---	---
18	8.8	8.6	8.7	8.0	7.9	7.9	8.3	7.8	8.0	---	---	---
19	8.7	8.3	8.6	8.3	8.0	8.1	8.2	7.8	8.0	---	---	---
20	8.8	8.2	8.5	8.4	8.1	8.2	8.4	7.8	8.1	---	---	---
21	8.9	8.5	8.6	8.3	8.2	8.3	8.7	8.0	8.4	---	---	---
22	9.0	8.4	8.7	8.4	7.9	8.2	8.5	7.7	8.2	---	---	---
23	8.9	8.3	8.6	8.2	7.9	8.1	8.2	7.7	7.9	---	---	---
24	9.1	8.4	8.6	8.0	7.9	8.0	8.4	7.8	8.1	---	---	---
25	9.0	8.6	8.8	8.3	8.0	8.2	8.3	7.8	8.1	---	---	---
26	8.9	8.5	8.7	8.5	8.0	8.2	8.4	7.7	8.1	---	---	---
27	8.9	8.3	8.6	8.5	8.2	8.3	8.5	7.8	8.1	---	---	---
28	8.6	8.1	8.3	8.6	8.4	8.5	8.4	7.6	8.0	---	---	---
29	---	---	---	8.7	8.3	8.5	7.9	7.6	7.7	---	---	---
30	---	---	---	8.5	8.2	8.4	8.0	7.4	7.7	---	---	---
31	---	---	---	8.5	8.1	8.3	8.0	7.4	7.7	---	---	---
MONTH	9.2	8.0	8.6	8.7	7.7	8.1	8.7	7.4	7.9	8.3	7.6	8.0
YEAR	14.6	7.4	10.8									

PASSAIC RIVER BASIN

01379790 GREEN POND BROOK AT WHARTON, NJ

LOCATION.--Lat 40°54'55", long 74°34'55", Morris County, Hydrologic Unit 02030103, on left bank 600 ft upstream from bridge on State Route 15, 0.2 mi northwest of Wharton, and 1.7 mi upstream from mouth.

DRAINAGE AREA.--12.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 710 ft, from topographic map.

REMARKS.--Water-discharge records good. Some regulation from Lake Picatinny.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 572 ft³/s Apr. 5, 1984, gage height, 5.11 ft; minimum, 2.4 ft³/s Sept. 29, 1983, gage height, 2.28 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	1330	247	3.94	May 29	2000	347	4.19
Apr. 5	2245	*572	5.11	July 7	1030	444	4.55
May 4	0530	148	3.60				

Minimum discharge, 2.9 ft³/s Oct. 10, gage height, 2.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	4.8	40	47	16	46	63	25	164	35	18	7.2
2	5.1	4.8	35	45	15	44	66	23	124	32	17	6.7
3	4.2	5.0	32	43	16	41	68	24	101	26	17	6.7
4	4.0	5.5	47	40	31	38	74	85	66	21	16	15
5	4.0	5.0	47	39	24	39	398	54	39	31	16	9.5
6	4.6	4.8	48	37	23	45	512	48	48	83	15	7.8
7	3.9	4.7	60	34	22	38	318	44	43	385	14	7.2
8	3.7	4.5	47	31	20	35	213	55	32	214	15	6.9
9	3.8	4.5	44	29	19	34	168	57	30	126	15	6.6
10	3.3	6.9	42	26	18	32	129	45	26	93	13	7.1
11	3.3	12	39	26	21	30	105	39	23	83	13	8.0
12	5.4	7.7	56	25	24	27	65	40	21	83	12	6.8
13	5.6	6.0	167	23	24	28	40	41	20	59	12	6.4
14	5.8	5.7	222	22	26	77	58	43	19	48	12	6.3
15	4.7	6.9	168	21	74	58	74	41	16	40	11	6.2
16	4.4	23	127	20	79	61	81	38	15	45	11	6.0
17	4.4	15	101	19	84	69	73	35	15	42	9.9	6.0
18	4.4	12	84	18	76	70	83	31	16	53	9.3	6.0
19	12	11	72	18	67	67	80	30	16	45	9.0	5.8
20	6.4	9.6	60	17	60	62	70	32	14	36	11	5.6
21	5.6	28	51	16	54	72	61	34	12	45	9.2	5.6
22	4.9	22	77	14	48	79	52	25	7.2	41	8.5	5.2
23	7.7	18	78	14	46	69	50	28	6.1	33	9.2	5.2
24	35	20	65	17	66	60	47	28	13	28	8.4	5.6
25	11	51	57	21	55	55	42	24	27	24	7.8	5.5
26	7.8	42	49	20	51	52	38	23	13	21	7.3	5.4
27	6.5	34	45	20	47	48	34	21	13	37	7.2	5.2
28	5.9	34	63	19	56	52	31	26	12	30	7.3	5.2
29	5.4	70	74	18	53	60	26	176	12	25	7.2	5.4
30	4.9	48	58	18	---	56	28	327	12	22	7.1	5.0
31	4.9	---	52	18	---	58	---	237	---	18	9.3	---
TOTAL	197.2	526.4	2207	775	1215	1602	3147	1779	975.3	1904	354.7	197.1
MEAN	6.36	17.5	71.2	25.0	41.9	51.7	105	57.4	32.5	61.4	11.4	6.57
MAX	35	70	222	47	84	79	512	327	164	385	18	15
MIN	3.3	4.5	32	14	15	27	26	21	6.1	18	7.1	5.0
CFSM	.50	1.39	5.65	1.98	3.33	4.10	8.33	4.56	2.58	4.87	.90	.52
IN.	.58	1.55	6.52	2.29	3.59	4.73	9.29	5.25	2.88	5.62	1.05	.58

CAL YR 1983 TOTAL 13456.1 MEAN 36.9 MAX 289 MIN 3.1 CFSM 2.93 IN. 39.73
WTR YR 1984 TOTAL 14879.7 MEAN 40.7 MAX 512 MIN 3.3 CFSM 3.23 IN. 43.93

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°54'06", long 74°24'40", Morris County, Hydrologic Unit 02030103, on right bank at Morris Avenue in Boonton, 1.8 mi upstream from dam at Boonton Reservoir.

DRAINAGE AREA.--116 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for October 1937, published in WSP 1302.

REVISED RECORDS.--WRD-NJ 1974: 1938(M). WDR NJ-78-1: 1949(M), 1952(M), 1968(M), 1971(M), 1973(P), 1974(M), 1977(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 364.47 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Flow regulated by Splitrock Reservoir on Beaver Brook, 14.5 mi above station (see Passaic River Basin, reservoirs in). Town of Boonton diverts water for municipal supply from Taylortown Reservoir on Stony Brook, capacity, 75,000,000 gal and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 0.65 ft³/s. Rockaway Valley trunk sewer bypasses the station (see station 01381000).

COOPERATION.--Gage-height record collected in cooperation with Jersey City, Bureau of Water.

AVERAGE DISCHARGE.--47 years, 228 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,590 ft³/s Apr. 5, 1984, gage height, 7.23 ft; minimum daily, 10 ft³/s Aug. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0245	2270	5.52	Apr. 16	2045	1130	4.14
Dec. 23	0115	1140	4.17	May 4	1345	1050	4.01
Dec. 29	0645	1100	4.09	May 30	1630	2350	5.59
Feb. 15	2215	1350	4.48	July 6	1030	1210	4.28
Apr. 5	2030	*5590	7.23	July 7	1715	2770	5.94

Minimum discharge, 34 ft³/s Oct. 10, 11, gage height, 1.87 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	70	440	394	152	450	583	296	1390	446	151	67
2	83	65	385	360	145	385	619	265	992	561	148	56
3	59	67	350	339	153	351	627	260	783	312	170	69
4	51	86	455	324	398	334	639	851	640	242	138	405
5	48	87	582	311	327	344	3020	699	481	252	154	186
6	70	84	488	301	273	498	3750	515	422	1010	143	117
7	47	79	743	287	231	434	2370	452	443	1990	128	98
8	42	75	552	259	184	353	1420	473	354	1850	133	86
9	38	72	460	247	179	332	1050	612	293	1100	133	83
10	35	82	414	234	169	315	858	471	253	765	125	80
11	36	216	373	245	185	301	733	408	222	587	117	91
12	80	181	484	204	267	272	621	383	193	719	111	81
13	103	125	1630	217	269	279	513	423	176	505	116	75
14	121	108	2090	213	288	752	488	390	174	382	104	73
15	73	111	1520	201	837	717	624	346	168	304	94	75
16	55	402	1090	183	1080	605	871	310	151	307	86	72
17	48	272	828	188	778	634	951	283	141	350	87	65
18	45	184	654	177	637	595	764	258	173	367	77	62
19	183	165	546	179	538	552	772	250	187	396	73	58
20	125	155	473	162	501	515	652	261	152	302	113	55
21	82	393	376	153	456	551	554	357	131	367	81	52
22	66	332	636	136	406	793	488	261	118	404	77	48
23	83	237	956	154	366	616	471	269	107	286	97	46
24	529	216	599	185	596	532	492	324	142	232	88	46
25	344	497	352	324	539	489	449	252	717	193	72	49
26	178	521	471	320	466	459	405	225	355	166	65	44
27	132	408	503	237	407	424	373	215	219	314	62	39
28	118	384	497	217	453	427	345	226	170	324	60	43
29	95	682	953	187	551	552	326	797	145	247	60	47
30	77	539	603	173	---	559	310	2170	172	203	60	44
31	72	---	456	176	---	540	---	1960	---	172	88	---
TOTAL	3199	6895	20959	7287	11831	14960	26138	15262	10064	15655	3211	2412
MEAN	103	230	676	235	408	483	871	492	335	505	104	80.4
MAX	529	682	2090	394	1080	793	3750	2170	1390	1990	170	405
MIN	35	65	350	136	145	272	310	215	107	166	60	39

CAL YR 1983 TOTAL 127528 MEAN 349 MAX 2410 MIN 31
WTR YR 1984 TOTAL 137873 MEAN 377 MAX 3750 MIN 35

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°53'47", long 74°23'36", Morris County, Hydrologic Unit 02030103, on right bank 2,000 ft downstream from Boonton Reservoir Dam at Boonton.

DRAINAGE AREA.--119 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to December 1903; January, February 1904 (gage height only); January 1906 to September 1950 (monthly discharge only, published in WSP 1302) October 1950 to current year (figures of daily discharge for October 1950 to September 1954 published in Special Report 16 of New Jersey Department of Environmental Protection). Published as "near Boonton" 1903-4, and as "at Boonton" 1906-37.

REVISED RECORDS.--WSP 1902: 1951-54. WDR NJ-79-1: 1949(M), 1952(M), 1968(M), 1970-74(M), 1977(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1936. Datum of gage is 195.68 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Mar. 15, 1903 to Feb. 2, 1904, nonrecording gage at site 1.9 mi downstream at different datum. Jan. 1, 1906 to Mar. 3, 1918, nonrecording gage on Boonton Dam 2,000 ft upstream at datum 305.25 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. Records represent flow in river only. Sewage effluent enters river about 600 ft below station (records given herein). Flow regulated by Boonton Reservoir (see Passaic River Basin, reservoirs in) 2,000 ft above station, and by Splitrock Reservoir (see Passaic River Basin, reservoirs in) 16.5 mi above station. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with and record of sewage effluent funished by Jersey City, Bureau of Water.

AVERAGE DISCHARGE.--78 years (water years 1907-84), 139 ft³/s, adjusted for sewage effluent since October 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,560 ft³/s, Oct. 10, 1903; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,260 ft³/s Apr. 6, gage height, 8.17 ft; minimum, 2.3 ft³/s Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	323	326	62	353	502	197	1740	230	67	11
2	12	10	270	284	46	264	563	161	1130	523	53	11
3	12	10	230	249	52	225	584	153	778	269	70	13
4	10	10	274	232	212	207	607	668	645	166	53	12
5	10	10	372	201	276	211	2150	783	441	160	52	11
6	11	10	353	193	199	340	3850	518	325	789	58	11
7	11	10	418	182	141	322	2950	378	332	2060	46	11
8	10	10	376	162	92	243	1890	374	264	2410	36	11
9	10	10	332	150	79	218	1250	569	201	1280	31	11
10	10	11	292	139	68	187	918	430	156	744	28	11
11	11	11	255	152	70	179	736	320	126	519	26	11
12	12	9.7	287	117	117	153	307	277	112	636	24	11
13	11	9.6	1340	110	146	167	71	313	76	483	28	11
14	12	9.8	2440	115	155	515	355	316	59	306	20	11
15	11	10	1790	105	520	704	573	323	67	219	11	11
16	12	11	1200	87	1120	585	815	274	60	186	10	11
17	12	9.7	794	83	786	576	1040	197	56	224	12	7.0
18	10	9.9	569	86	678	557	764	162	71	237	12	2.9
19	12	10	467	86	531	494	735	156	93	286	12	4.4
20	10	10	394	65	442	430	709	163	72	217	12	7.5
21	10	13	291	47	348	435	576	243	46	206	11	10
22	11	10	424	35	286	702	452	188	32	320	11	9.9
23	13	10	870	42	243	629	393	164	25	216	11	9.8
24	15	10	608	68	439	473	444	205	33	150	11	11
25	11	14	296	158	530	385	369	171	488	111	11	11
26	11	11	260	177	372	333	300	137	500	82	11	11
27	11	11	276	147	286	296	262	123	215	150	11	11
28	11	39	284	132	310	294	234	127	124	236	11	12
29	10	345	847	109	472	489	216	559	65	167	10	12
30	10	363	707	91	---	500	208	2430	68	126	10	12
31	10	---	412	90	---	460	---	2520	---	95	11	---
TOTAL	344	1027.7	18051	4220	9078	11926	24823	13599	8400	13803	780	310.5
MEAN	11.1	34.3	582	136	313	385	827	439	280	445	25.2	10.3
MAX	15	363	2440	326	1120	704	3850	2520	1740	2410	70	13
IN	10	9.6	230	35	46	153	71	123	25	82	10	2.9
(†)	10.2	10.7	14.9	11.6	12.7	14.2	19.0	14.9	13.8	15.2	11.0	10.7

CAL YR 1983 TOTAL 93928.5 MEAN 257 MAX 2730 MIN 9.6 † 12.8
WTR YR 1984 TOTAL 106362.2 MEAN 291 MAX 3850 MIN 2.9 † 13.2

† Sewage effluent, in cubic feet per second, from plant of Rockaway Valley Regional Sewerage Authority.

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'29", long 74°20'53", Morris County, Hydrologic Unit 02030103, at bridge on U.S. Route 46 at intersection with New Road in Pine Brook, and 1.1 mi upstream of mouth.

DRAINAGE AREA.--136 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 16...	1330	1230	231	7.4	3.0	12.7	93	.7	<200	200
APR 02...	1330	720	210	7.7	6.5	12.1	97	3.0	33	8
JUN 06...	1330	570	176	7.7	19.0	8.1	86	2.1	330	220
JUL 23...	1330	295	186	7.8	25.0	7.3	88	4.2	800	1100
AUG 23...	1300	56	414	7.8	21.0	5.2	59	6.5	3500	3500

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 16...	55	14	4.9	21	1.1	31	18	40	<.10
APR 02...	51	13	4.4	20	1.1	28	17	35	<.10
JUN 06...	51	13	4.4	12	1.1	31	14	22	.10
JUL 23...	55	14	4.8	12	1.2	38	12	21	.10
AUG 23...	110	28	9.8	29	4.1	72	29	45	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 16...	8.5	146	.013	.55	.300	.47	1.0	.080	3.6
APR 02...	7.3	117	.010	.50	.210	.57	1.1	.070	2.8
JUN 06...	7.1	--	.042	.44	.220	.83	1.3	.100	3.9
JUL 23...	7.9	127	.092	.44	.120	.82	1.3	.150	4.5
AUG 23...	11	245	.330	1.9	3.25	E3.8	--	.710	4.3

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN									
06...	1330	<.5	90	1	<10	50	2	20	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
06...	390	9	40	<.1	9	<1	60	<1

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'21", long 74°27'22", Morris County, Hydrologic Unit 02030103, on left bank at Morristown sewage-disposal plant, 0.8 mi downstream from Morristown, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--29.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1925-27(M) 1928-29, 1930-32(M), 1933-34. WRD-NJ 1974: 1965.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 1, 1936. Datum of gage is 260.01 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. No gage-height record Jan. 19-Feb. 14, Mar. 20-22, Apr. 5, July 10-23. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi above station.

AVERAGE DISCHARGE.--63 years, 52.9 ft³/s, 24.43 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s, revised, Aug. 28, 1971, gage height, 8.60 ft; minimum, 2.8 ft³/s Aug. 27, 1932, gage height, 0.73 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1045	1020	5.22	May 29	0200	493	3.89
Dec. 23	0015	462	3.80	May 30	0545	1200	5.67
Dec. 28	1830	565	4.09	June 24	1715	636	4.27
Feb. 15	1900	686	4.39	July 1	0815	764	4.59
Apr. 5	0445	*1680	6.66	July 5	1800	665	4.34
May 3	2200	528	3.99	July 7	0845	1540	6.40

Minimum discharge, 13 ft³/s Oct. 10.

REVISIONS.--The maximum discharge and gage height for the water year 1971 have been revised to 2,800 ft³/s, August 28, 1971, gage height, 8.60, superseding figures published in the report for 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	20	48	72	32	88	201	73	246	330	42	23
2	39	20	42	73	26	79	193	69	180	150	49	22
3	19	21	45	73	26	75	165	150	146	60	53	44
4	17	21	139	71	119	70	205	348	126	47	42	128
5	31	19	114	70	84	96	1340	124	105	188	46	39
6	28	19	97	69	45	163	651	93	127	433	43	26
7	17	18	192	66	38	99	370	87	100	1230	39	24
8	16	18	69	61	40	79	266	157	82	298	38	23
9	15	18	57	57	26	80	216	162	73	154	36	22
10	15	38	54	60	25	72	183	95	67	121	36	25
11	15	67	48	67	30	70	159	87	61	136	35	25
12	42	38	182	53	50	65	143	111	58	178	39	23
13	37	24	818	53	46	84	128	123	57	93	41	21
14	53	22	535	56	84	263	125	97	52	82	34	21
15	21	38	223	54	431	175	200	83	48	78	34	23
16	17	163	155	49	294	145	308	81	46	65	32	21
17	17	56	123	51	138	144	208	76	55	66	31	20
18	17	30	104	50	110	118	143	67	74	68	29	20
19	80	26	94	48	104	104	173	70	63	74	28	20
20	30	25	82	46	99	97	131	74	47	60	52	20
21	20	125	73	43	88	180	111	158	42	64	28	18
22	18	47	279	39	80	180	101	78	39	80	26	17
23	59	31	283	40	79	109	117	78	38	62	34	18
24	297	41	111	36	205	96	122	92	179	54	29	19
25	71	164	94	122	119	92	98	64	212	47	25	20
26	32	87	96	100	92	89	89	69	53	44	24	22
27	26	50	75	45	80	83	85	82	43	148	24	17
28	24	75	195	40	143	108	82	90	38	74	24	23
29	21	203	279	34	142	157	80	417	37	53	24	20
30	19	66	101	30	---	152	78	892	68	48	25	18
31	20	---	77	29	---	171	---	432	---	45	32	---
TOTAL	1156	1590	4884	1757	2875	3583	6471	4679	2562	4630	1074	782
MEAN	37.3	53.0	158	56.7	99.1	116	216	151	85.4	149	34.6	26.1
MAX	297	203	818	122	431	263	1340	892	246	1230	53	128
MIN	15	18	42	29	25	65	78	64	37	44	24	17
CFSM	1.27	1.80	5.37	1.93	3.37	3.95	7.35	5.14	2.90	5.07	1.18	.89
IN.	1.46	2.01	6.18	2.22	3.64	4.53	8.19	5.92	3.24	5.86	1.36	.99

CAL YR 1983 TOTAL 30317 MEAN 83.1 MAX 818 MIN 14 CFSM 2.83 IN. 38.36
WTR YR 1984 TOTAL 36043 MEAN 98.5 MAX 1340 MIN 15 CFSM 3.35 IN. 45.61

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1926, 1962 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 14...	1100	78	277	7.6	4.5	13.6	104	1.1	28000	3100
MAR 22...	1215	183	187	7.6	6.0	12.1	99	2.4	24000	13000
MAY 29...	1100	283	157	7.7	15.0	12.3	122	4.9	24000	7900
JUL 19...	1030	71	222	7.8	21.0	9.2	103	3.9	35000	13000
AUG 22...	1130	26	314	7.8	22.5	8.4	97	4.8	>24000	>24000

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 14...	71	18	6.4	23	1.8	41	19	43	<.10
MAR 22...	51	13	4.5	15	1.2	27	15	27	<.10
MAY 29...	47	12	4.1	10	1.4	33	13	17	.20
JUL 19...	70	18	6.0	13	1.8	44	15	25	<.10
AUG 22...	98	25	8.7	19	2.4	64	26	34	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 14...	14	171	.043	1.1	.770	1.2	2.3	.360	2.4
MAR 22...	12	122	.015	.80	.140	.64	1.4	.150	3.0
MAY 29...	11	--	.030	.64	.340	1.2	1.8	.260	4.8
JUL 19...	15	154	.081	1.0	.390	1.1	2.1	.200	3.1
AUG 22...	16	200	.132	1.5	.890	1.4	2.9	.470	2.9

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
29...	1100	<.5	20	1	<10	40	1	10	13

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
29...	2100	17	140	<.1	7	<1	60	<1

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ

LOCATION.--Lat 40°50'42", long 74°20'51", Morris County, Hydrologic Unit 02030103, at bridge on New Road, 0.3 mi southwest of overpass of Interstate 280, 0.4 mi upstream of Rockaway River, and 1.4 mi southwest of Pine Brook.

DRAINAGE AREA.--68.5 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB										
16...	1030	E631	182	7.0	1.5	9.7	68	2.2	2400	1300
APR										
02...	1030	E407	240	7.4	8.0	10.1	84	3.3	170	50
JUN										
06...	1030	E189	227	7.4	20.0	2.5	27	2.3	400	<200
JUL										
23...	1100	E119	268	7.5	22.5	5.0	57	6.3	790	1600
AUG										
23...	1030	E52	380	7.6	21.5	4.5	51	8.0	1700	4900

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB									
16...	42	11	3.6	16	1.4	24	15	30	<.10
APR									
02...	60	16	4.8	22	1.2	36	19	38	<.10
JUN									
06...	75	20	6.0	13	1.8	54	17	21	.10
JUL									
23...	88	23	7.4	15	1.9	62	18	26	<.10
AUG									
23...	120	30	11	24	2.7	80	31	42	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
16...	5.7	121	.020	.48	.370	.53	1.0	.150	6.1
APR									
02...	6.7	135	.012	.52	.180	.63	1.2	.080	4.8
JUN									
06...	10	176	.054	.58	.220	.96	1.5	.220	7.8
JUL									
23...	14	193	.134	1.0	.410	1.5	2.5	.430	6.7
AUG									
23...	15	242	.260	2.1	1.06	2.2	4.3	.590	4.4

01381900 PASSAIC RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'45", long 74°19'18", Morris County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on U.S. Route 46, 0.5 mi east of Pine Brook, and 1.3 mi downstream from Rockaway River.

DRAINAGE AREA.--349 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963-69, 1973, and annual maximum, water years 1966-75, 1978-79. October 1979 to current year. Feb. 19 to Aug. 24, 1939 in files of U.S. Army Corps of Engineers, New York District.

REVISED RECORDS.--WDR NJ-77-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 149.26 ft National Geodetic Vertical Datum of 1929. December 1965 to September 1979, crest-stage gage at same site at datum 10.00 ft higher. Feb. 19 to Aug. 24, 1939, water-stage recorder at present NJ Route 506 bridge, 1,600 ft upstream from gage, operated by U.S. Army Corps of Engineers, New York District at datum 13.05 ft higher.

REMARKS.--Water-discharge records fair except those over 2,000 ft³/s and those for the period Dec. 20 to Jan. 26, when the well was frozen, which are poor. Flow regulated by Boonton and Splitrock Reservoirs (see Passaic River Basin, reservoirs in) and many small lakes. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River Basin, diversions).

AVERAGE DISCHARGE.--5 years, 654 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s Apr. 7, 1984, gage height, 22.90 ft, affected by backwater downstream; minimum observed, 70 ft³/s Sept. 29, 1980, gage height, 10.15 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, according to State Geologist in 1904, 23.2 ft Oct. 10, 1903, present datum, from King Survey of highwater marks at present NJ Route 506 bridge, 1,600 ft upstream from gage. Floods of Mar. 13, 1936 and Sept. 24, 1938 reached stages of 20.8 ft and 19.4 ft respectively, at present NJ Route 506 bridge and present datum. Flood of July 23, 1945 reached a stage of 22.3 ft at present site and datum according to U.S. Army Corps of Engineers; minimum observed, 41.1 ft³/s Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 15	0815	6450	20.61	Apr. 17	2315	2160	18.06
Feb. 17	0900	2560	18.46	June 1	0730	7100	20.88
Apr. 7	---	*8000	22.90	July 9	0515	4570	19.77

Minimum discharge, 96 ft³/s Oct. 9, 10, gage height, 10.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	154	1440	1490	464	1410	1970	635	7010	649	411	154
2	219	145	1360	1240	464	1330	2170	577	6270	996	349	133
3	212	143	1220	982	403	1200	2250	519	4970	1120	369	134
4	151	150	1150	811	713	1040	2410	951	3920	1030	320	473
5	127	140	1330	684	1040	901	4040	1450	3080	757	290	438
6	193	133	1490	625	1090	1020	6030	1650	2420	1150	360	262
7	144	130	1640	597	1010	1150	7910	1580	2000	2310	336	186
8	109	130	1740	571	828	1170	7610	1480	1750	4070	292	154
9	99	130	1680	534	654	1100	6630	1490	1500	4450	245	146
10	98	144	1530	546	499	954	5550	1520	1250	3850	224	143
11	104	398	1370	474	474	818	4410	1440	950	3100	213	156
12	164	449	1270	485	664	729	3420	1320	641	2660	205	154
13	337	334	2230	456	797	663	2620	1230	462	2310	247	145
14	311	254	5230	452	839	1000	1910	1190	377	1960	250	140
15	252	224	6380	422	1240	1450	1550	1120	350	1660	228	136
16	172	651	5750	377	2100	1770	1880	1030	317	1420	194	133
17	142	832	4720	349	2540	1860	2060	888	292	1230	184	124
18	131	760	3830	346	2440	1850	2120	722	325	1080	175	121
19	323	580	3080	347	2230	1770	2000	600	427	988	161	124
20	374	418	2460	328	2000	1650	1900	565	428	858	195	125
21	246	698	1920	304	1790	1550	1760	802	344	723	186	128
22	181	868	1880	274	1570	1600	1590	918	271	850	159	127
23	179	804	2190	264	1370	1660	1460	885	234	912	170	126
24	865	620	2060	270	1340	1580	1360	895	232	887	199	126
25	1020	780	2010	428	1430	1460	1300	843	852	807	174	129
26	889	1020	1760	657	1450	1330	1200	718	1120	654	150	131
27	648	1050	1540	696	1350	1210	1070	664	1070	641	140	125
28	380	960	1650	660	1270	1100	912	624	743	836	143	132
29	260	1120	1680	578	1360	1090	784	1080	451	841	144	153
30	201	1350	1620	506	---	1400	685	2800	418	713	146	138
31	164	---	1660	479	---	1720	---	5930	---	533	164	---
TOTAL	8899	15569	70870	17232	35419	40535	82561	38116	44474	46045	7023	4896
MEAN	287	519	2286	556	1221	1308	2752	1230	1482	1485	227	163
MAX	1020	1350	6380	1490	2540	1860	7910	5930	7010	4450	411	473
MIN	98	130	1150	264	403	663	685	519	232	533	140	121

CAL YR 1983 TOTAL 352879 MEAN 967 MAX 6380 MIN 85
WTR YR 1984 TOTAL 411639 MEAN 1125 MAX 7910 MIN 98

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'40", long 74°16'23", Passaic County, Hydrologic Unit 02030103, at bridge on Two Bridges Road in Two Bridges, 50 ft upstream from Pompton River.

DRAINAGE AREA.--361 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1969 to September 1974.
pH: June 1969 to September 1974.
WATER TEMPERATURES: October 1962 to September 1974.
DISSOLVED OXYGEN: June 1969 to September 1974.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 13...	1030	306	578	7.5	16.0	3.7	37	7.3	>24000	540
FEB 21...	1330	2510	208	7.5	4.5	9.6	74	--	50	20
APR 04...	1300	3030	248	7.4	8.5	--	--	1.6	13	7
JUN 12...	1330	1050	280	7.1	26.5	2.0	25	3.8	40	40
JUL 31...	1330	815	271	7.6	22.0	4.6	52	6.0	500	230
AUG 30...	1300	171	562	7.9	23.5	2.9	34	5.7	20	20

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	140	36	13	58	4.5	82	48	82	.20
FEB 21...	51	13	4.6	19	1.3	26	20	34	<.10
APR 04...	54	14	4.7	23	1.2	30	24	41	<.10
JUN 12...	81	21	6.9	19	2.2	53	21	33	.10
JUL 31...	73	19	6.3	21	2.2	49	21	32	.10
AUG 30...	130	34	12	49	3.8	83	48	75	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	16	336	.290	3.4	3.65	5.2	8.5	1.17	6.6
FEB 21...	8.1	129	.031	.67	.340	.59	1.3	.130	5.3
APR 04...	5.7	150	.019	.55	.210	E.62	--	.110	4.4
JUN 12...	12	188	.146	.91	.860	2.0	2.9	.480	8.2
JUL 31...	13	189	.119	1.0	.530	.80	1.8	.360	7.5
AUG 30...	16	350	.238	3.0	2.55	3.2	6.2	.770	4.0

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT												
13...	1030	--	450	<.1	1.4	--	--	<1	--	--	--	3
JUN												
12...	1330	<.5	--	--	--	30	2	--	<10	80	<1	--

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
13...	--	8	<10	--	0	--	7600	--	<10	--	56
JUN											
12...	60	--	--	10	--	1800	--	12	--	370	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	--	.02	--	10	--	<1	--	40	--	4	<1.0
JUN											
12...	.1	--	5	--	<1	--	20	--	9	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	2.0	.8	.3	<.1	<.1	<.1	<.1	<.1	<.1	<.1
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'00", long 74°23'47", Morris County, Hydrologic Unit 02030103, on left bank at Macopin intake dam of Newark water-works, 0.4 mi downstream from Macopin River, and 3.0 mi northwest of Butler.

DRAINAGE AREA.--63.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1898 to current year. Monthly discharge only for some periods, published in WSP 1302. Records for January 1892 to December 1897, published in WSP 541, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder above dam. Datum of gage is 570.00 ft National Geodetic Vertical Datum of 1929 (levels by New Jersey Geological Survey). Prior to May 22, 1970, at datum 13.55 ft higher.

REMARKS.--Water-discharge records fair except those below 10 ft³/s, which are poor. Records given herein represent flow over intake dam only. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg Reservoirs, and Echo Lake (see Passaic River Basin, reservoirs in). Water diverted at Charlotteburg Reservoir for municipal supply of city of Newark (see Passaic River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with the Department of Public Affairs, Division of Water Supply, city of Newark. Prior to May 22, 1970, discharge figures furnished by city of Newark.

AVERAGE DISCHARGE.--86 years, 51.4 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 6,100 ft³/s Oct. 10, 1903, gage height, 17.4 ft present datum; no flow over dam during several months of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,880 ft³/s Apr. 5, gage height, 16.90 ft; no flow part or all of many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.00	22	20	5.0	187	138	39	747	40	5.4	.16
2	.56	.97	15	19	5.4	124	181	26	480	33	4.6	.35
3	.47	3.1	13	16	4.5	93	238	24	324	15	4.1	.70
4	.38	3.7	37	16	16	73	304	323	242	9.9	3.2	4.1
5	.84	1.7	32	16	8.2	72	2500	378	176	16	3.3	1.3
6	.53	1.3	31	14	5.9	133	3170	255	117	49	3.2	.51
7	.47	2.5	50	13	4.3	116	1360	204	85	924	2.7	.78
8	.57	1.3	28	9.6	5.3	76	735	215	58	906	3.4	.38
9	.52	1.3	18	9.2	5.3	71	512	272	33	528	1.7	.42
10	.57	5.0	16	8.3	4.6	56	399	211	16	297	1.3	.51
11	.62	25	13	11	6.5	42	309	131	13	206	1.3	.57
12	4.8	18	48	7.1	11	33	209	110	12	166	1.3	.39
13	4.7	9.9	254	6.3	8.7	36	146	128	11	92	1.3	.45
14	3.3	6.3	205	4.8	13	298	122	119	9.9	48	1.4	.43
15	.51	7.0	102	8.1	101	286	201	80	8.7	22	1.0	.72
16	.57	32	67	6.6	57	263	455	58	5.7	40	.57	.46
17	.57	14	42	6.2	33	267	558	41	4.6	114	.51	.37
18	.57	8.5	27	5.6	23	246	449	24	5.4	119	.54	.38
19	3.2	6.1	18	12	22	228	340	23	5.7	150	.59	.38
20	1.6	4.7	10	6.4	19	224	282	22	3.8	76	.84	.38
21	.92	32	12	5.1	16	287	235	21	3.2	42	.69	.36
22	.89	14	52	5.7	16	358	193	18	2.2	54	.47	.45
23	2.9	9.1	55	4.5	67	299	151	18	1.3	26	.62	.50
24	20	11	35	5.9	274	230	116	20	9.6	16	.34	.57
25	14	54	72	20	272	187	101	15	47	12	.40	.91
26	8.6	37	137	9.2	221	147	76	12	12	9.1	.38	1.4
27	3.1	30	96	6.3	145	107	55	11	5.6	20	.38	.31
28	.38	28	68	5.4	182	115	55	15	3.8	17	.52	.38
29	.00	59	68	4.5	264	261	49	175	3.2	13	.68	.38
30	.00	32	37	4.3	---	187	43	1410	4.6	11	.38	.41
31	.00	---	28	8.8	---	127	---	1230	---	8.2	.26	---
TOTAL	76.60	458.47	1708	294.9	1815.7	5229	13682	5628	2450.3	4079.2	47.37	19.41
MEAN	2.47	15.3	55.1	9.51	62.6	169	456	182	81.7	132	1.53	.65
MAX	20	59	254	20	274	358	3170	1410	747	924	5.4	4.1
MIN	.00	.00	10	4.3	4.3	33	43	11	1.3	8.2	.26	.16

CAL YR 1983 TOTAL 33538.94 MEAN 91.9 MAX 1430 MIN .00
WTR YR 1984 TOTAL 35488.95 MEAN 97.0 MAX 3170 MIN .00

01383500 WANAQUE RIVER AT AWOSTING, NJ

LOCATION.--Lat 41°09'31", long 74°20'00", Passaic County, Hydrologic Unit 02030103, on right bank 700 ft downstream from dam at outlet of Greenwood Lake at Awosting.

DRAINAGE AREA.--27.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year. Prior to October 1940, published as "at Greenwood Lake".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936. WDR NJ-79-1: 1933(M), 1936(M), 1945(M), 1948(P), 1951(P), 1952(P), 1953(M), 1955(P), 1956(M), 1957(M), 1958(M), 1960(P), 1961(M), 1968(P), 1969(P). WDR NJ-80-1: 1960(P).

GAGE.--Water-stage recorder. Concrete control since Oct. 31, 1938. Datum of gage is 601.32 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Apr. 1, 1926, nonrecording gage and Apr. 1, 1926, to Oct. 31, 1938, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Water-discharge records good except those below 10 ft³/s,which are fair. Flow completely regulated by Greenwood Lake (see Passaic River Basin, reservoirs in).

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

AVERAGE DISCHARGE.--65 years, 54.6 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s Apr. 5, 1984, gage height, 6.65 ft, from rating curve extended above 750 ft³/s based on theoretical weir formula; no flow at times when gates at Greenwood Lake were closed and water below the spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 4	0945	347	3.45	Apr. 5	2315	*2800	6.65
Nov. 27	1415	243	3.19	Apr. 17	0845	203	3.07
Dec. 8	1530	261	3.24	May 30	2345	981	4.56
Dec. 14	1045	436	3.64	June 3	2400	239	3.18
Dec. 24	1200	257	3.23	July 7	2200	560	3.87

Minimum discharge, 1.1 ft³/s Dec. 23, 28, gage height, 1.32 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	88	176	24	24	22	109	51	637	84	30	21
2	13	231	52	24	24	22	113	45	419	151	29	21
3	12	305	61	24	24	25	129	44	277	128	27	21
4	12	344	62	24	24	29	154	110	200	101	24	21
5	12	340	103	24	24	33	1630	142	147	100	23	21
6	20	334	207	24	24	48	2350	136	116	189	23	21
7	28	334	242	24	24	57	1440	120	95	458	23	22
8	17	330	247	24	24	56	806	119	78	479	23	22
9	3.9	333	205	24	24	63	483	124	67	326	22	22
10	10	331	68	24	24	57	316	111	58	224	22	22
11	18	323	79	24	24	54	222	94	50	165	22	22
12	28	314	157	24	24	50	168	93	41	131	22	22
13	29	314	309	24	24	52	134	85	36	101	22	22
14	28	315	420	24	24	134	115	79	33	79	22	22
15	28	159	408	24	24	157	122	67	30	64	21	21
16	28	38	260	24	24	157	158	57	22	69	21	20
17	26	44	221	24	24	174	197	49	20	74	22	20
18	22	47	244	24	24	164	182	42	19	77	21	19
19	20	48	260	24	24	153	161	38	20	79	21	20
20	18	48	244	24	23	146	149	37	19	65	21	20
21	16	73	174	24	22	153	135	36	18	59	21	20
22	16	102	96	24	22	187	105	33	18	59	21	19
23	16	125	138	24	22	183	94	33	18	52	21	18
24	19	136	252	24	22	160	91	37	18	47	21	18
25	43	136	252	24	22	134	89	30	35	40	21	18
26	45	161	245	24	22	123	80	30	39	33	21	17
27	45	211	197	24	22	102	70	33	33	40	21	12
28	45	243	58	24	22	98	64	35	29	44	21	5.8
29	46	243	38	24	22	149	59	171	27	40	21	4.9
30	46	243	47	24	---	134	54	819	34	36	21	4.1
31	46	---	25	24	---	118	---	892	---	33	21	---
TOTAL	767.9	6293	5547	744	67[illegible]	3194	9979	3792	2653	3627	692	558.8
MEAN	24.8	210	179	24.0	23.3	103	333	122	88.4	117	22.3	18.6
MAX	46	344	420	24	24	187	2350	892	637	479	30	22
MIN	3.9	38	25	24	22	22	54	30	18	33	21	4.1

CAL YR 1983 TOTAL 38000.2 MEAN 104 MAX 768 MIN 3.9
WTR YR 1984 TOTAL 38524.7 MEAN 105 MAX 2350 MIN 3.9

01384000 WANAQUE RIVER AT MONKS, NJ

LOCATION.--Lat 41°07'14", long 74°17'41", Passaic County, Hydrologic Unit 02030103, on left bank just upstream from Wanaque Reservoir and 0.3 mi downstream from bridge on Stonetown Road at Monks.

DRAINAGE AREA.--40.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for October to December 1934, published in WSP 1302.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 303.17 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good except those below 50 ft^3/s, which are fair. Records given herein include flow over spillway, through ports in dam, and down fish ladder in dam. Flow regulated by Greenwood Lake (see Passaic River Basin, reservoirs in).

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

AVERAGE DISCHARGE.--50 years, 83.2 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,100 ft^3/s Apr. 5, 1984, gage height, 4.84 ft from high-water mark, from rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement of peak flow; no flow part of day in some years just after waste gate was closed and water was below intake to ports.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	0400	416	1.45	Feb. 15	1230	438	6.49
Dec. 7	0015	406	1.43	Apr. 5	---	*3100	a4.84
Dec. 13	1215	1350	2.68	May 30	0830	1250	2.56
Dec. 21	0930	633	1.79	July 7	0715	874	2.10
Dec. 25	0900	686	1.86				

a From high-water mark.

Minimum discharge, 3.5 ft^3/s Oct. 9, 10.

REVISIONS.--The peak discharges and annual maximums (*) for some water years have been revised as shown in the following table. They supersede figures published in the reports for those years.

Water year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1955	Aug. 19, 1955	---	*2606	4.15	1971	Aug. 28, 1971	0845	*1746	3.13
1956	Oct. 15, 1955	1200	*2303	3.78	1979	Sept. 6, 1979	1030	*2670	4.24
1968	May 29, 1968	1200	*2473	3.97	1980	Mar. 21, 1980	---	*2713	4.30

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	79	252	67	51	79	193	68	608	185	35	21
2	15	222	98	64	61	70	216	60	426	223	33	20
3	11	279	105	62	49	67	249	58	312	167	30	20
4	12	303	146	60	64	65	277	266	247	127	28	23
5	12	300	167	59	59	70	1580	225	190	145	28	21
6	13	298	271	57	54	99	1460	199	151	296	26	20
7	27	297	350	55	48	97	1140	174	122	624	25	20
8	24	296	312	55	50	88	695	182	97	479	25	20
9	5.7	297	276	49	53	94	481	195	79	343	24	20
10	4.4	300	137	49	45	94	354	163	68	260	24	20
11	14	308	120	50	50	88	278	138	58	204	24	21
12	29	302	247	52	62	88	224	133	49	163	24	22
13	29	296	1120	50	62	88	185	124	41	123	23	20
14	30	295	969	52	71	278	164	118	39	92	22	20
15	28	192	656	47	264	259	195	94	36	73	21	20
16	27	83	421	43	187	259	268	81	27	107	21	19
17	27	72	349	43	126	281	282	69	24	91	21	19
18	21	69	331	42	101	261	267	60	25	111	21	18
19	32	67	336	43	92	248	241	55	25	103	21	18
20	24	65	318	39	88	236	223	53	22	77	31	18
21	19	151	355	36	75	252	198	53	21	74	22	18
22	18	152	203	34	68	282	160	47	20	73	21	18
23	22	168	223	35	64	262	144	45	19	62	22	18
24	112	182	332	41	128	232	142	52	23	54	21	18
25	79	266	431	62	92	201	128	43	76	46	21	18
26	67	254	309	51	80	182	112	39	49	38	20	17
27	61	275	266	48	71	156	96	44	39	56	20	16
28	58	301	157	47	103	150	86	48	34	58	20	8.1
29	57	357	149	46	104	211	79	456	30	48	20	5.9
30	55	311	133	45	---	199	72	1100	48	43	21	5.2
31	55	---	92	45	---	187	---	917	---	39	22	---
TOTAL	999.1	6837	9631	1528	2422	5223	10189	5359	3005	4584	737	542.2
MEAN	32.2	228	311	49.3	83.5	168	340	173	100	148	23.8	18.1
MAX	112	357	1120	67	264	282	1580	1100	608	624	35	23
MIN	4.4	65	92	34	45	65	72	39	19	38	20	5.2

CAL YR 1983 TOTAL 51606.1 MEAN 141 MAX 1120 MIN 4.4
WTR YR 1984 TOTAL 51056.3 MEAN 139 MAX 1580 MIN 4.4

01387000 WANAQUE RIVER AT WANAQUE, NJ

LOCATION.--Lat 41°02'33", long 74°17'36", Passaic County, Hydrologic Unit 02030103, on left bank 750 ft downstream from Raymond Dam in Wanaque, and 50 ft upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 mi², considered as 94 mi² Oct. 1, 1928 to Sept. 30, 1934.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1903 to December 1905 (gage heights only), September 1912 to April 1915, May 1919 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 210.00 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Dec. 16, 1903, to Dec. 31, 1905, nonrecording gage on highway bridge at site 50 ft downstream at different datum. Sept. 15, 1912, to Apr. 1, 1922, nonrecording gage at site 200 ft downstream from present concrete control at different datum. Apr. 1, 1922 to Mar. 14, 1931, water-stage recorder at site 400 ft downstream from present concrete control at present datum.

REMARKS.--Water-discharge records good. Flow regulated by Greenwood Lake (see Passaic River Basin, reservoirs in) 11 mi above station, and since 1928 by Wanaque Reservoir (see Passaic River Basin, reservoirs in). North Jersey Water Supply Commission diverts water for municipal supply from Wanaque Reservoir. Water is diverted to Wanaque Reservoir from Post Brook at Wanaque and from Ramapo River at Pompton Lakes (see Passaic River Basin, diversions).

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

AVERAGE DISCHARGE.--67 years, (water years 1913, 1914, 1920-84), 79.5 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft³/s Apr. 5, 1984, gage height, 10.82 ft from rating curve extended above 4,500 ft³/s; minimum daily, 0.5 ft³/s Dec. 11, 12, 14-23, 1949, Sept. 11, 12, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s Apr. 5, gage height, 10.82 ft; minimum, 1.0 ft³/s Sept. 27, gage height, 0.94 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	20	21	136	22	184	256	95	1530	21	24	18
2	5.5	20	21	120	22	151	309	52	1030	19	25	18
3	11	20	21	103	22	132	392	39	724	18	23	18
4	16	20	22	82	22	106	508	316	518	18	22	19
5	8.0	20	22	71	22	100	4700	422	337	19	22	18
6	10	20	23	62	22	147	5470	305	231	20	22	18
7	11	20	22	81	22	150	2470	244	172	859	45	18
8	10	20	22	44	22	119	1630	272	119	1150	48	18
9	10	20	22	35	22	154	1130	342	67	746	20	18
10	10	20	22	36	22	88	798	266	35	476	19	18
11	10	20	22	66	22	98	568	204	30	315	17	18
12	11	20	23	51	22	67	420	174	30	239	17	18
13	14	19	59	30	22	74	319	181	27	163	16	18
14	17	19	33	25	22	317	269	191	28	106	16	17
15	16	19	26	24	25	390	346	136	32	58	16	19
16	16	20	27	24	121	371	554	116	25	74	17	18
17	16	20	108	24	243	438	665	66	25	96	18	18
18	16	20	296	23	235	393	528	38	25	92	18	18
19	17	20	422	23	209	362	441	30	27	108	18	18
20	16	20	324	23	201	327	410	32	28	65	19	18
21	16	21	271	23	173	338	387	31	29	43	20	19
22	16	20	340	23	147	432	257	28	30	47	20	20
23	17	20	438	23	128	384	240	29	30	35	19	20
24	18	20	403	22	205	301	235	38	31	32	19	22
25	16	22	328	22	226	255	230	28	29	30	19	14
26	16	21	294	23	195	226	168	28	27	23	18	1.2
27	20	21	252	22	132	189	140	29	26	24	19	1.5
28	20	21	244	22	168	194	121	27	25	26	20	9.3
29	20	22	381	22	230	384	108	457	23	22	20	22
30	20	21	253	22	---	274	98	2530	20	22	20	22
31	20	---	166	22	---	240	---	2240	---	22	19	---
TOTAL	445.3	606	4928	1329	2946	7385	24167	8986	5310	4988	655	512.0
MEAN	14.4	20.2	159	42.9	102	238	806	290	177	161	21.1	17.1
MAX	20	22	438	136	243	438	5470	2530	1530	1150	48	22
MIN	5.5	19	21	22	22	67	98	27	20	18	16	1.2

CAL YR 1983 TOTAL 54120.1 MEAN 148 MAX 2220 MIN 1.8
WTR YR 1984 TOTAL 62257.3 MEAN 170 MAX 5470 MIN 1.2

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to September 1980.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and selected water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
12...	1145	10	106	7.4	12.0	10.5	96	2.1	50	79
JAN										
26...	1245	25	92	7.4	3.0	13.1	97	1.7	7	<2
APR										
03...	1200	389	90	7.7	5.0	12.6	98	1.8	<2	<2
JUN										
13...	1230	26	94	7.2	11.5	10.4	94	1.5	<2	<2
AUG										
02...	1200	26	92	7.5	12.5	11.0	103	2.7	<2	23
SEP										
06...	1100	18	92	7.3	12.0	10.5	96	1.8	<2	2

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
12...	31	8.4	2.5	7.2	.70	21	12	12	<.10
JAN									
26...	29	7.5	2.4	7.1	.70	20	13	12	<.10
APR									
03...	26	6.8	2.2	6.9	.70	14	13	10	<.10
JUN									
13...	26	6.8	2.2	6.8	1.0	14	11	12	<.10
AUG									
02...	26	6.8	2.1	6.4	.60	14	11	11	<.10
SEP									
06...	27	7.3	2.2	6.7	.60	16	9.6	12	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
12...	4.5	62	.005	.13	.090	.41	.54	.050	3.9
JAN									
26...	4.2	64	.012	.15	<.050	.15	.30	.040	2.9
APR									
03...	3.4	45	.006	.09	.050	E.33	--	.040	2.5
JUN									
13...	4.2	38	.009	.11	.180	.30	.41	.050	2.1
AUG									
02...	4.3	66	.005	.20	<.050	.67	.87	.030	2.1
SEP									
06...	5.2	--	.005	.21	.110	.27	.48	.020	1.0

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
12...	1145	<.5	560	.3	4.3	<10	3	<1	<10	30	1	5

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
12...	<10	20	<10	<10	90	480	17000	1	40	1000	1600

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	<.1	.68	2	10	<1	<1	10	660	<1	2000	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01387420 RAMAPO RIVER AT SUFFERN, NY

LOCATION.--lat 41°07'06", long 74°09'38", Rockland County, NY, Hydrologic Unit 02030103, on left bank, 145 ft downstream from highway bridge on New York State Thruway at Suffern, and 1.1 mi upstream from Mahwah River.

DRAINAGE AREA.--93.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Concrete control. Datum of gage is 264.44 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Flow affected by diversion from Spring Valley Water Company well field upstream from station and by occasional regulation by Lake Sebago.

COOPERATION.--Figures of pumpage from well field furnished by Spring Valley Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft³/s; minimum, 2.6 ft³/s Sept. 30, 1981, gage height, 1.23 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	2315	4350	10.78	May 30	1100	4260	10.39
Feb. 16	0345	1240	5.45	July 7	0700	1940	7.50
Apr. 5	1930	*12300	15.38				

Minimum discharge, 7.7 ft³/s Sept. 26, 27, gage height, 1.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	71	389	270	79	426	363	90	1530	169	43	17
2	49	112	307	220	76	323	455	76	941	279	40	15
3	36	114	277	200	73	279	586	78	661	154	46	13
4	41	83	344	180	187	243	718	372	540	134	43	21
5	61	64	465	170	200	235	7110	360	431	133	38	26
6	61	57	403	160	180	283	5880	250	361	380	35	18
7	60	53	800	150	150	267	1930	197	321	1560	30	16
8	57	49	628	140	130	222	1020	219	287	1060	28	14
9	55	46	426	130	110	219	693	321	258	549	24	14
10	53	47	349	110	100	194	509	252	234	339	23	13
11	32	94	296	120	108	172	436	227	171	248	23	15
12	30	124	422	110	202	144	382	275	84	213	22	15
13	54	99	3380	100	223	143	345	269	74	164	24	13
14	57	78	3560	96	247	397	310	264	68	123	22	13
15	48	68	1860	88	700	448	405	240	60	99	19	14
16	36	177	1090	82	1070	420	580	215	48	132	18	14
17	31	177	759	78	680	440	631	220	44	157	16	12
18	28	137	580	74	470	500	510	224	45	145	15	11
19	77	112	459	72	410	430	478	217	48	186	14	10
20	88	99	360	68	393	470	426	210	40	117	30	9.9
21	60	307	294	64	331	540	365	172	33	99	31	9.8
22	49	316	419	62	284	580	304	97	26	133	22	9.5
23	58	235	596	60	256	458	270	84	23	100	18	9.5
24	643	212	423	64	481	366	273	99	31	78	18	9.7
25	578	516	330	106	499	308	222	78	169	60	16	9.9
26	288	711	280	120	392	276	183	67	84	49	16	9.0
27	218	481	250	105	310	250	152	72	51	79	14	8.7
28	163	384	313	100	380	242	123	78	39	121	13	9.8
29	116	662	629	94	597	349	113	1030	32	74	12	10
30	92	547	450	86	---	331	102	3730	61	59	12	9.8
31	81	---	340	82	---	311	---	2770	---	51	14	---
TOTAL	3374	6232	21478	3561	9318	10266	25874	12853	6795	7244	739	389.6
MEAN	109	208	693	115	321	331	862	415	227	234	23.8	13.0
MAX	643	711	3560	270	1070	580	7110	3730	1530	1560	46	26
MIN	28	46	250	60	73	143	102	67	23	49	12	8.7
*	6.0	8.2	9.6	11	11	12	12	11	12	8.1	11	6.8

CAL YR 1983 TOTAL 105626.6 MEAN 289 MAX 3560 MIN 7.3 * 7.6
WTR YR 1984 TOTAL 108123.6 MEAN 295 MAX 7110 MIN 8.7 * 9.8

* Diversion, in cubic feet per second, by pumpage from well field upstream of station.

01387450 MAHWAH RIVER NEAR SUFFERN, NY

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, NY, Hydrologic Unit 02030103, on left bank 13 ft upstream from bridge on U.S. Highway 202, 2.5 mi northeast of Suffern, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--12.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.--WDR NY-79-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 321.57 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1976, water-stage recorder at site on right bank 13 ft downstream, at present datum.

REMARKS.--Water-discharge records poor. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--26 years, 25.3 ft³/s, 27.93 in/yr.

EXTREMES FOR PERIOD OF RECORDS.--Maximum discharge, 1,840 ft³/s Nov. 8, 1977, gage height, 9.91 ft, from rating curve extended above 850 ft³/s on basis of contracted-opening measurements at gage heights 8.52 ft and 9.91 ft; minimum 0.05 ft³/s Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 24	0730	241	3.94	Apr. 5	1530	*1310	7.49
Dec. 13	1315	821	5.92	May 29	2030	640	5.39
Dec. 28	2230	201	3.73	May 30	0915	756	5.73
Feb. 15	1400	285	4.15	July 7	0900	619	5.33

Minimum discharge, 1.3 ft³/s Sept. 22, 26, gage height, 1.33 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	53	34	13	56	56	25	174	50	8.8	3.4
2	7.3	12	43	31	12	48	64	23	104	32	8.2	2.7
3	5.6	12	39	30	13	42	67	24	76	31	7.8	2.5
4	4.6	12	60	28	38	38	71	78	60	29	7.4	6.1
5	3.6	11	56	28	30	39	862	49	49	30	7.2	3.9
6	3.0	11	57	27	28	49	474	39	42	100	7.2	2.8
7	2.6	10	102	25	23	40	191	34	37	401	7.6	2.4
8	2.1	10	66	22	18	34	113	47	31	182	7.6	2.3
9	2.0	9.9	52	19	17	32	84	52	27	82	6.1	2.2
10	2.1	9.3	46	19	17	28	70	42	24	53	6.1	2.3
11	2.1	22	40	20	20	28	60	37	21	42	6.0	2.3
12	10	19	74	17	32	24	53	35	19	35	6.7	2.2
13	14	16	554	16	32	24	47	34	18	28	6.3	1.9
14	12	14	411	15	35	62	47	34	17	24	5.6	1.9
15	7.3	14	175	15	138	53	66	30	15	21	5.0	2.0
16	5.8	50	103	14	110	55	117	28	14	27	4.6	2.3
17	4.8	37	76	14	71	63	91	26	13	23	4.3	1.9
18	4.4	29	61	13	56	55	70	25	15	26	4.1	1.7
19	17	24	53	13	50	51	60	24	18	22	4.0	1.7
20	10	21	44	12	47	48	53	23	13	17	6.7	1.8
21	8.6	80	38	12	41	48	46	23	11	17	4.2	1.6
22	7.4	56	81	11	37	48	41	20	11	17	3.9	1.4
23	12	42	74	11	34	42	41	21	9.9	14	4.1	1.4
24	144	38	55	15	78	38	44	26	12	13	4.1	1.4
25	64	97	44	25	59	35	38	21	38	11	3.6	1.6
26	39	82	38	20	49	32	33	19	17	10	3.2	1.5
27	27	62	34	18	42	29	31	19	13	22	3.0	1.6
28	21	56	62	18	72	30	29	23	10	16	3.0	1.7
29	17	98	77	15	76	39	28	206	9.4	13	3.0	2.1
30	15	69	47	14	---	39	27	587	20	11	3.0	2.0
31	14	---	38	15	---	45	---	372	---	9.7	4.7	---
TOTAL	502.3	1036.2	2753	586	1288	1294	3074	2046	938.3	1408.7	167.1	66.6
MEAN	16.2	34.5	88.8	18.9	44.4	41.7	102	66.0	31.3	45.4	5.39	2.22
MAX	144	98	554	34	138	63	862	587	174	401	8.8	6.1
MIN	2.0	9.3	34	11	12	24	27	19	9.4	9.7	3.0	1.4
CFSM	1.32	2.80	7.22	1.54	3.61	3.39	8.29	5.37	2.54	3.69	.44	.18
IN.	1.52	3.13	8.33	1.77	3.90	3.91	9.30	6.19	2.84	4.26	0.51	0.20

CAL YR 1983 TOTAL 15609.4 MEAN 42.8 MAX 578 MIN 1.7 CFSM 3.48 IN. 47.21
WTR YR 1984 TOTAL 15160.2 MEAN 41.4 MAX 862 MIN 1.4 CFSM 3.37 IN. 45.85

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from State Highway 17, 0.6 mi downstream from Mahwah River, and 1.0 mi west of Mahwah. Water-quality samples collected at bridge 350 ft upstream from gage at high flows.

DRAINAGE AREA.--120 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year (October 1902 to February 1905 monthly discharge only, published in WSP 1302). Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used. Gage-height records for 1903-14 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 781: 1904(M). WSP 1031: 1938, 1940. WSP 1552: 1923(M), 1924, 1925-26(M), 1927-28, 1933, 1937. WRD-NJ 1971: 1968(M). WDR NJ-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--Water-discharge records fair. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see sta. 01387420). Occasional regulation from lakes and ponds upstream from the station.

AVERAGE DISCHARGE.--66 years (water years 1903-06,1923-84), 232 ft^3/s, 26.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s April 5, 1984, gage height, 13.35 ft, from rating curve extended above 1,400 ft^3/s; minimum discharge, 4.6 ft^3/s Sept. 30, 1981 (possible regulation); minimum daily discharge, 6.1 ft^3/s Sept. 30, 1981 (possible regulation).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	2315	5540	10.28	May 30	1330	3780	9.37
Apr. 5	1945	*15500	13.35	July 7	0800	2020	7.90

Minimum discharge, 13.0 ft^3/s Sept. 25, gage height, 2.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	119	537	343	116	587	560	189	1560	332	78	38
2	69	169	439	311	103	470	644	173	1180	424	73	34
3	47	168	395	291	112	406	743	169	962	242	77	41
4	48	128	518	277	313	359	908	546	703	223	74	65
5	76	102	652	264	292	358	8600	473	584	261	72	47
6	81	88	574	252	261	434	5860	326	497	650	68	36
7	74	81	1060	237	214	398	2010	273	440	1720	62	33
8	69	76	808	212	176	330	1300	325	384	1300	60	31
9	67	72	577	190	159	321	1020	417	341	788	54	30
10	61	88	488	178	150	295	735	324	310	512	52	33
11	37	169	418	191	176	275	661	295	252	388	51	32
12	64	188	623	158	288	255	592	332	165	303	51	30
13	94	146	4010	141	314	250	526	327	152	234	54	27
14	101	118	4150	153	351	601	510	326	147	190	50	37
15	68	120	1880	144	890	617	620	296	136	166	45	40
16	47	301	1210	123	1220	576	863	272	122	227	41	24
17	39	266	962	124	842	666	828	255	115	226	39	24
18	36	209	720	119	632	625	632	240	119	225	38	26
19	142	173	608	125	557	569	569	232	149	254	37	26
20	121	154	502	109	540	569	500	227	112	174	60	22
21	73	544	415	98	472	631	437	203	99	164	54	20
22	57	479	636	93	408	702	373	143	90	189	44	17
23	98	335	806	93	365	600	343	145	85	157	42	15
24	980	301	580	119	671	507	354	158	120	131	41	15
25	764	782	484	205	653	442	312	130	320	102	38	14
26	413	957	402	201	543	404	269	119	157	87	37	15
27	300	657	346	172	452	359	241	121	113	168	35	15
28	240	568	467	164	557	349	223	141	94	181	34	17
29	194	940	818	138	773	498	212	1060	86	126	33	18
30	156	747	555	127	---	498	200	3370	146	101	33	17
31	137	---	410	132	---	494	---	2610	---	87	38	---
TOTAL	4881	9245	27050	5484	12600	14445	31645	14217	9740	10332	1565	839
MEAN	157	308	873	177	434	466	1055	459	325	333	50.5	28.0
MAX	980	957	4150	343	1220	702	8600	3370	1560	1720	78	65
MIN	36	72	346	93	103	250	200	119	85	87	33	14
CFSM	1.31	2.57	7.27	1.47	3.62	3.88	8.79	3.82	2.71	2.77	.42	.23
IN	1.51	2.87	8.39	1.70	3.91	4.48	9.81	4.41	3.02	3.20	.49	.26

CAL YR 1983 TOTAL 142184 MEAN 390 MAX 4150 MIN 13 CFSM 3.25 IN 44.08
WTR YR 1984 TOTAL 142043 MEAN 388 MAX 8600 MIN 14 CFSM 3.23 IN 44.03

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: February 1964 to June 1965.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
04...	1130	47	382	7.8	16.5	7.7	79	1.8	49	5
JAN										
25...	1230	199	584	7.8	1.5	14.5	105	2.4	3500	1700
APR										
12...	1115	593	226	7.7	11.0	10.3	94	2.1	79	350
JUN										
14...	1100	149	356	8.1	21.5	8.7	99	4.5	3500	50
AUG										
01...	1100	79	341	7.8	21.0	9.0	101	2.7	5400	230
SEP										
05...	1030	48	394	7.8	18.0	8.4	88	2.7	9200	2800

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
04...	100	29	7.6	36	2.2	67	26	57	.10
JAN									
25...	95	26	7.3	72	1.3	63	23	120	.10
APR									
12...	62	17	4.7	18	.90	40	19	36	<.10
JUN									
14...	100	28	8.0	27	1.4	75	20	49	.10
AUG									
01...	98	27	7.4	26	1.6	74	20	44	.10
SEP									
05...	110	31	8.2	32	2.0	81	24	52	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
04...	6.6	228	.048	1.5	.370	1.2	2.7	.300	4.7
JAN									
25...	7.7	325	.031	1.0	.750	1.3	2.4	.150	3.7
APR									
12...	5.9	145	.014	.50	.380	.47	.97	.070	2.1
JUN									
14...	7.9	232	.048	.99	.250	.77	1.8	.140	2.4
AUG									
01...	8.3	221	.024	1.3	.140	.48	1.8	.150	2.5
SEP									
05...	6.5	229	.021	1.8	.170	.51	2.3	.200	2.7

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 04...	1130	<.5	480	.1	1.7	<10	4	<1	<10	60	1	<1
JUN 14...	1100	<.5	--	--	--	80	1	--	<10	40	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 04...	10	6	<10	<10	<10	680	4300	5	20	120	300
JUN 14...	20	--	--	2	--	320	--	4	--	90	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	<.1	.01	1	<10	<1	<1	30	40	<1	<1	<1.0
JUN 14...	.1	--	3	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	<.1	3.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
JUN 14...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 14...	--	--	--	--	--	--	--	--	--	--	--

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ

LOCATION.--Lat 40°59'33", long 74°16'44", Passaic County, Hydrologic Unit 02030103, on right end of dam at pumping station in Pompton Lakes and 2.0 mi upstream from mouth.

DRAINAGE AREA.--160 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1552: 1922(M), 1924-25, 1929-31(M), 1934-35(M). WRD-NJ 1970: 1968-69.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 190.96 ft (revised) National Geodetic Vertical Datum of 1929. Prior to October 1, 1981, at datum 10.00 ft higher.

REMARKS.--Water-discharge records good. Diversion by North Jersey Water Supply Commission to Wanaque Reservoir since December 1953, for municipal supply (records given herein). Slight regulation by Pompton Lake, capacity, 300,000,000 gal.

AVERAGE DISCHARGE.--63 years, 305 ft^3/s, 25.89 in/yr, adjusted for diversion since Dec. 1, 1953.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft^3/s April 5, 1984, gage height, 15.21 ft in gage well, 15.33 from flood marks, present datum; no flow part of September 30, 1980 and many days in 1981, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0200	6770	13.15	May 30	1615	6420	13.05
Feb. 16	0745	1690	11.34	July 7	1445	3540	12.10
Apr. 5	2330	*15400	a15.21				

a In gage well, 15.33 ft from flood marks.
Minimum discharge, 23 ft^3/s Oct. 17, gage height, 10.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	163	725	425	141	714	699	284	2790	390	110	34
2	121	178	565	383	144	557	826	250	1680	569	100	34
3	71	209	503	359	145	476	945	237	1200	325	101	49
4	58	175	637	335	337	419	1100	709	944	274	104	211
5	75	142	854	319	366	411	7620	784	755	263	97	99
6	102	124	733	302	347	519	10400	525	630	971	96	64
7	93	113	1160	278	293	481	3880	431	553	2710	91	44
8	90	102	1080	250	226	397	1990	464	460	2190	88	40
9	87	103	774	238	204	374	1380	684	400	1160	77	37
10	79	112	642	221	188	355	1040	532	344	762	72	38
11	71	201	551	231	200	326	847	447	303	570	64	39
12	72	231	749	163	315	296	712	463	209	452	61	37
13	153	196	4250	167	366	295	607	497	174	337	61	33
14	141	159	5930	184	385	653	559	479	166	261	61	34
15	90	148	3200	172	964	735	812	438	149	224	56	35
16	69	369	1800	167	1570	678	1140	388	134	299	46	34
17	64	361	1280	158	1070	786	1280	352	122	310	42	32
18	59	283	990	142	757	763	977	332	131	276	38	29
19	169	234	778	148	632	683	853	317	159	340	38	46
20	191	207	620	137	592	651	745	312	132	247	51	50
21	126	588	497	133	535	714	637	318	106	219	68	44
22	91	631	719	128	473	821	533	236	95	240	53	42
23	108	452	1130	147	406	724	473	215	86	212	48	41
24	959	388	789	186	676	608	500	253	100	174	43	42
25	954	812	536	244	761	527	448	213	430	147	40	39
26	578	1160	450	228	630	475	377	183	229	117	37	37
27	407	884	412	214	519	419	342	176	146	191	36	34
28	316	728	501	195	622	415	318	188	110	235	34	37
29	257	1120	1070	169	885	567	311	1090	102	182	33	38
30	206	1020	759	165	---	606	315	5400	162	142	32	37
31	180	---	509	132	---	602	---	4840	---	121	34	---
TOTAL	6207	11593	35193	6720	14749	17047	42666	22037	13001	14910	1912	1410
MEAN	200	386	1135	217	509	550	1422	711	433	481	61.7	47.0
MAX	959	1160	5930	425	1570	821	10400	5400	2790	2710	110	211
MIN	58	102	412	128	141	295	311	176	86	117	32	29
(†)	0	0	0	199	0	0	0	0	0	0	0	0
MEAN‡	200	386	1135	416	509	550	1422	711	433	481	61.7	47.0
CFSM‡	1.25	2.41	7.09	2.60	3.18	3.44	8.89	4.44	2.71	3.01	.39	.29
IN.‡	1.44	2.70	8.18	3.00	3.43	3.96	9.92	5.12	3.02	3.47	.44	.33

CAL YR 1983 TOTAL 185857 MEAN 509 MAX 5930 MIN 18 MEAN‡ 509 CFSM‡ 3.18 IN.‡ 43.21
WTR YR 1984 TOTAL 187445 MEAN 512 MAX 10400 MIN 29 MEAN‡ 529 CFSM‡ 3.31 IN.‡ 44.90

† Diversion, in cubic feet per second, at station to Wanaque Reservoir for municipal supply. Records of diversion furnished by North Jersey District Water Supply Commission.
‡ Adjusted for diversion.

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

LOCATION.--Lat 40°58'09", long 74°16'56", Passaic County, Hydrologic Unit 02030103, on left bank in Passaic Valley Water Commission pumping station, 800 ft below confluence of Pequannock and Ramapo Rivers, 100 ft upstream from Jackson Avenue Bridge, and 0.7 mi east of Pompton Plains.

DRAINAGE AREA.--355 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1903 to December 1904, May 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1202: 1945(M).

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 160.00 ft National Geodetic Vertical Datum of 1929. March 1903 to December 1904, nonrecording gage on main spillway of dam 2,000 ft upstream at different datum. May 1940 to September 1964 two water-stage recorders, each above a concrete dam about 2,000 ft upstream at datum 14.46 ft higher.

REMARKS.--Water-discharge records fair. Water diverted from reservoirs on Pequannock and Wanaque Rivers, from Pompton River to Point View Reservoir and from Ramapo River to Wanaque Reservoir for municipal supply (see Passaic River Basin, diversions). Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg and Echo Lake Reservoirs on Pequannock River and by Greenwood Lake and Wanaque Reservior on Wanaque River (see Passaic River Basin, reservoirs in).

COOPERATION.--Gage-height record collected in cooperation with Passaic Valley Water Commission.

AVERAGE DISCHARGE.--45 years, (water years 1904, 1941-84), 489 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,340 ft^3/s Oct. 10, 1903, gage height, 14.3 ft, site and datum then in use, by computation of peak flow over dam; no flow Aug. 18-20, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0515	7740	17.24	Mar. 30	-	11200	20.01
Apr. 6	0230	*25400	24.47	July 7	1930	6130	15.73

Minimum discharge, 61 ft^3/s Sept. 27, gage height, 7.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	194	854	663	214	1320	1400	490	6200	619	190	79
2	148	203	664	545	221	1040	1570	411	4500	736	180	77
3	100	253	583	491	241	860	1800	380	3500	433	172	107
4	88	220	804	443	482	798	2040	1450	2600	374	173	328
5	94	175	1050	420	477	796	10900	1740	1800	428	169	160
6	122	151	887	402	428	1030	19900	1300	1300	1380	168	115
7	108	142	1400	393	384	1070	9890	1090	950	4530	176	96
8	100	136	1270	362	331	900	5800	1080	673	4790	196	89
9	95	137	924	331	317	700	3760	1490	525	2590	137	89
10	91	155	763	313	304	560	2630	1230	441	1620	125	88
11	86	306	671	346	317	490	1990	975	400	1320	118	91
12	109	323	966	233	415	430	1610	819	318	1080	114	86
13	173	271	5150	242	458	407	1360	816	286	701	115	82
14	181	213	7110	260	491	1500	1230	816	276	466	113	81
15	134	203	4230	256	1480	1630	1600	715	259	368	106	83
16	102	457	2240	244	2020	1480	2190	577	222	510	99	82
17	89	424	1620	238	1610	1670	2550	481	201	565	97	79
18	84	360	1460	223	1210	1580	2090	429	220	528	91	76
19	229	313	1270	214	934	1440	1850	405	260	621	88	86
20	222	286	1020	202	857	1380	1680	397	222	436	102	89
21	148	745	876	189	755	1510	1510	393	179	370	113	86
22	117	716	1230	177	646	1840	1260	330	164	390	103	82
23	146	516	1760	198	570	1610	1150	301	152	344	103	82
24	1090	452	1440	243	960	1330	1130	298	195	294	94	81
25	988	1010	1150	353	1260	1170	1030	296	685	258	89	88
26	560	1270	968	287	1180	1060	819	268	351	207	84	68
27	415	976	829	268	1050	869	685	256	249	320	83	63
28	350	821	979	253	1100	853	600	400	195	352	82	65
29	302	1360	1610	244	1600	1420	543	1400	172	286	80	82
30	257	1200	1210	231	---	1360	529	8000	262	245	80	86
31	225	---	842	212	---	1270	---	9000	---	210	84	---
TOTAL	7151	13988	47830	9476	22312	35373	87096	38033	27757	27371	3724	2846
MEAN	231	466	1543	306	769	1141	2903	1227	925	883	120	94.9
MAX	1090	1360	7110	663	2020	1840	19900	9000	6200	4790	196	328
MIN	84	136	583	177	214	407	529	256	152	207	80	63

CAL YR 1983 TOTAL 311374 MEAN 853 MAX 8580 MIN 46
WTR YR 1984 TOTAL 322957 MEAN 882 MAX 19900 MIN 63

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ

LOCATION.--Lat 40°56'36", long 74°16'47", Morris County, Hydrologic Unit 02030103, at bridge cn State Highway 504 in Packanack Lake, and 2.2 mi downstream from confluence of Pequannock and Wanaque Rivers.

DRAINAGE AREA.--361 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 13...	1330	176	286	7.7	17.0	8.4	86	3.9	1600	350
FEB 21...	1030	774	182	7.5	4.5	13.2	102	--	130	20
APR 04...	1030	1970	179	7.4	6.5	12.7	102	2.1	49	110
JUN 12...	1030	327	230	7.8	24.0	7.9	93	1.8	170	80
JUL 31...	1030	214	269	7.7	21.0	7.9	88	3.9	230	170
AUG 30...	1030	80	307	7.8	22.0	6.5	74	4.2	70	490

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	86	24	6.3	22	1.7	57	21	37	.10
FEB 21...	48	13	3.8	15	.80	27	16	26	<.10
APR 04...	44	12	3.4	16	.70	24	15	29	<.10
JUN 12...	68	19	5.0	16	1.1	43	18	29	.10
JUL 31...	80	22	6.0	18	1.3	55	19	32	<.10
AUG 30...	88	24	6.7	21	1.6	60	24	37	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	5.2	157	.071	.99	.260	1.4	2.3	.140	3.5
FEB 21...	6.5	97	.013	.48	.160	.47	.95	.070	2.9
APR 04...	5.2	99	.011	.34	.170	E.62	--	.060	2.1
JUN 12...	6.8	139	.041	.67	.220	.37	1.0	.120	2.3
JUL 31...	8.5	174	.081	.99	.150	.70	1.7	.120	2.8
AUG 30...	7.7	207	.114	1.2	.300	1.0	2.2	.210	2.5

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
13...	1330	<.5	30	2	<10	110	5	10	10
JUN									
12...	1030	<.5	<10	1	<10	40	<1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
13...	590	12	120	<.1	16	<1	20	2
JUN								
12...	330	3	100	<.1	3	<1	10	5

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ
(National stream quality accounting network station)

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, Hydrologic Unit 02030103, on left bank 0.6 mi downstream from Beattie's Dam in Little Falls, and 1.0 mi upstream from Peckman River. Water-quality monitor located 0.5 mi upstream from gaging station.

DRAINAGE AREA.--762 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1897 to current year. Monthly discharge only for September 1897, published in WSP 1302. Published as "at Paterson" September 1897 to September 1955.

GAGE.--Water-stage recorder. Datum of gage is 120.00 ft National Geodetic Vertical Datum of 1929 (levels by Passaic Valley Water Commission). Prior to Jan. 8, 1933, nonrecording gage and Jan. 8, 1933, to Sept. 30, 1955, water-stage recorder, at site 3.7 mi downstream at National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Diurnal fluctuation at medium and low flow caused by hydroelectric plant at Beattie's Dam. Flow regulated by reservoirs in Rockaway, Pequannock, Wanaque, and Pompton River Basin (see Passaic River Basin, reservoirs in). Large diversions for municipal supply from Passaic River above Beattie's Dam, and from Rockaway, Pequannock, and Wanaque Rivers (see Passaic River Basin, diversions). In addition, the Commonwealth Water Co., diverts from Canoe Brook near Summit and from Passaic River (see Passaic River Basin, diversions); that company and the city of East Orange also divert water for municipal supply by pumping wells.

COOPERATION.--Gage-height record collected in cooperation with the Passaic Valley Water Commission.

AVERAGE DISCHARGE.--87 years, 1,168 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,700 ft^3/s Oct. 10, 1903, present site; no flow July 3-5, 1904, July 16, 23, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 15	1430	9720	8.99
Apr. 7	0930	*18400	12.91
Apr. 17	2015	4440	5.84
June 1	0915	12000	10.08
June 6	0015	5010	6.26
July 9	0315	7040	7.58

Minimum discharge, 118 ft^3/s Oct. 22, Nov. 7, Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	368	2260	2310	655	2690	2910	1220	11700	1240	715	219
2	359	341	2080	2070	551	2410	3170	1100	10700	1720	578	184
3	312	370	1900	1800	540	2150	3450	991	8660	1630	586	263
4	223	378	2030	1480	1040	1870	3800	1990	6860	1470	527	1010
5	201	328	2260	1220	1420	1660	7510	2680	5560	1310	497	794
6	262	293	2260	1080	1480	1880	14400	2650	4500	2540	526	490
7	237	233	2640	1020	1380	1970	18000	2510	3650	4710	568	295
8	174	259	2700	965	1140	1880	16000	2470	3010	6650	547	241
9	148	255	2540	847	920	1780	13200	2750	2520	6800	425	216
10	137	329	2330	791	784	1620	10700	2610	2060	6000	389	210
11	136	596	2120	798	738	1390	8390	2370	1630	5110	335	231
12	264	698	2330	800	944	1230	6530	2190	1180	4440	315	232
13	500	608	5020	697	1180	1100	5150	2120	854	3730	378	211
14	487	486	8150	699	1290	2080	3970	2040	715	3150	396	197
15	381	448	9610	683	2420	2770	3520	1890	653	2670	369	195
16	265	1010	8870	609	3380	2950	3780	1710	561	2350	310	193
17	200	1210	7250	569	3720	3210	4330	1530	512	2200	289	165
18	180	1140	6050	577	3810	3350	4400	1300	547	1980	266	146
19	488	918	5160	571	3590	3270	4170	1120	686	1890	248	146
20	606	728	4340	529	3340	3100	3790	1060	696	1640	274	165
21	448	1290	3550	477	3020	3040	3420	1240	567	1360	313	164
22	302	1590	3480	418	2660	3250	3010	1280	456	1350	269	163
23	329	1430	3800	421	2330	3180	2680	1270	394	1380	276	162
24	1750	1180	3620	487	2630	2970	2470	1300	399	1320	288	166
25	1960	1650	3200	778	2750	2690	2300	1210	1550	1220	256	174
26	1690	2150	2790	1030	2660	2410	2090	1070	1490	1050	214	157
27	1300	2070	2420	1030	2390	2130	1840	967	1340	1130	175	135
28	879	1900	2430	965	2410	1930	1610	971	1100	1300	185	144
29	636	2350	3030	859	2780	2270	1440	2220	736	1270	192	179
30	493	2420	2910	760	---	2630	1330	6020	694	1140	198	193
31	415	---	2570	724	---	2700	---	10100	---	919	236	---
TOTAL	16147	29026	115700	28064	57952	73560	163360	65949	75980	76669	11140	7440
MEAN	521	968	3732	905	1998	2373	5445	2127	2533	2473	359	248
MAX	1960	2420	9610	2310	3810	3350	18000	10100	11700	6800	715	1010
MIN	136	233	1900	418	540	1100	1330	967	394	919	175	135

CAL YR 1983 TOTAL 644296 MEAN 1765 MAX 9700 MIN 73
WTR YR 1984 TOTAL 720987 MEAN 1970 MAX 18000 MIN 135

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
WATER TEMPERATURES: Water years 1963 to 1980 (once daily), September 1980 to current year.
DISSOLVED OXYGEN: October 1970 to September 1980 (once daily).
SUSPENDED-SEDIMENT DISCHARGE: August 1963 to July 1965.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 841 momhos Jan. 26, 1982; minimum, 99 micromhos April 6, 1984.
WATER TEMPERATURES: Maximum, 29.5°C July 12, 1981; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum daily, 14.4 mg/L Jan. 7, 1973; minimum daily, 1.7 mg/L June 23, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 669 micromhos Jan. 26; minimum, 99 micromhos Apr. 6.
WATER TEMPERATURES: Maximum, 27.0°C Aug. 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
22...	1215	1610	219	7.3	10.0	32	10.8	94	5.4	--	K7800
JAN											
27...	1200	1010	589	7.4	1.0	6.7	13.0	91	2.9	K48	88
MAR											
16...	1300	2920	286	7.4	3.5	6.0	13.2	98	1.5	--	--
MAY											
09...	1300	2760	200	7.5	14.5	4.1	11.0	108	8.4	K440	K660
JUL											
26...	1200	1050	243	7.6	23.5	10	7.6	89	4.8	230	1400
SEP											
19...	1250	156	476	8.2	17.5	9.6	8.7	91	6.3	120	K40

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV											
22...	67	18	5.4	15	2.0	38	37	25	.20	8.9	147
JAN											
27...	100	27	8.0	75	2.0	56	28	130	.20	11	329
MAR											
16...	56	15	4.5	31	1.0	28	17	59	<.10	6.8	166
MAY											
09...	56	15	4.6	14	1.3	35	18	24	.20	6.9	136
JUL											
26...	68	18	5.7	16	1.8	49	19	27	.10	11	172
SEP											
19...	130	35	9.9	37	3.4	79	37	61	<.10	13	257

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
22...	73	317	86	.87	.050	2.2	.050	.020	.020	7.6
JAN										
27...	14	38	74	1.2	1.20	2.2	.270	.200	.180	4.7
MAR										
16...	23	181	60	.61	.220	.60	.100	.050	.040	--
MAY										
09...	36	268	63	.62	.320	.80	.160	.040	.080	4.5
JUL										
26...	44	125	70	1.1	.350	1.4	.300	.120	.120	6.7
SEP										
19...	51	21	53	2.6	2.30	3.6	.660	.440	.430	--

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
22...	1215	20	2	25	<.5	<1	<1	<3	5	110	3
JAN											
27...	1200	30	1	34	<.5	<1	<1	<3	6	20	2
MAY											
09...	1300	20	1	24	<1	<1	8	<3	5	170	4
SEP											
19...	1250	500	1	22	<1	<1	3	<3	4	53	3

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
22...	5	42	.3	<10	3	<1	<1	64	<6	16
JAN										
27...	<4	140	.2	<10	5	<1	<1	110	<6	24
MAY										
09...	<4	48	.2	<10	1	<1	<1	58	<6	12
SEP										
19...	13	110	.2	<10	8	<1	<1	130	6	3

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	16.0	16.0	9.0	8.0	9.0	6.0	5.0	5.5			
2	17.5	16.5	17.0	9.0	8.5	9.0	5.0	4.5	4.5			
3	18.5	17.0	17.5	9.5	9.0	9.0	4.5	4.0	4.5			
4	19.0	18.0	18.5	9.5	9.0	9.0	4.0	4.0	4.0			
5	20.0	18.5	19.5	9.0	8.0	8.5	5.0	4.0	4.5			
6	20.0	19.0	19.5	8.5	7.5	8.0	6.0	5.0	5.5			
7	19.0	18.5	18.5	8.5	8.0	8.0	6.5	5.0	6.0			
8	18.0	17.5	18.0	9.0	8.0	8.5	5.0	4.0	4.5			
9	18.0	17.0	17.5	9.0	8.5	9.0	4.0	3.5	3.5			
10	17.5	16.5	17.0	9.5	9.0	9.0	4.5	3.5	4.0			
11	16.5	16.0	16.0	10.0	9.5	9.5	4.5	4.0	4.0			
12	17.0	15.5	16.0	9.5	8.5	9.0	5.5	3.5	4.0			
13	17.5	16.5	17.0	8.5	7.5	8.0	7.0	5.5	6.5			
14	18.0	17.5	17.5	7.5	7.0	7.0	7.0	6.5	6.5			
15	17.0	16.0	16.5	7.0	6.5	6.5	7.0	6.5	7.0			
16	16.5	15.0	15.5	8.5	7.0	8.0	7.0	6.5	6.5			
17	15.5	14.0	15.0	8.5	8.0	8.0	6.5	5.5	6.0			
18	14.5	14.0	14.5	8.0	7.0	7.5	5.0	4.0	4.5			
19	14.0	13.5	14.0	7.5	7.0	7.0	4.0	3.0	3.5			
20	13.5	13.0	13.5	8.5	7.5	8.0	3.0	1.0	2.0			
21	13.0	12.0	12.5	10.0	8.5	9.5	---	---	---			
22	12.0	11.0	11.5	10.0	9.5	10.0	---	---	---			
23	11.5	11.0	11.0	10.0	9.5	9.5	---	---	---			
24	12.5	11.5	12.0	9.5	9.5	9.5	---	---	---			
25	12.0	12.0	12.0	9.5	8.0	9.0	---	---	---			
26	12.0	11.5	11.5	8.0	7.0	7.5	---	---	---			
27	11.0	10.5	10.5	7.0	6.5	7.0	---	---	---			
28	10.5	9.5	10.0	7.0	6.5	6.5	---	---	---			
29	11.0	10.0	10.5	7.0	6.5	6.5	---	---	---			
30	10.0	9.5	10.0	6.5	6.0	6.5	---	---	---			
31	9.5	9.0	9.0	---	---	---	---	---	---			
MONTH	20.0	9.0	14.5	10.0	6.0	8.0	7.0	1.0	5.0			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	7.5	5.0	6.0	16.5	15.5	16.0
2				---	---	---	8.0	6.0	7.0	16.0	15.0	15.5
3				---	---	---	9.0	7.0	8.0	15.5	14.0	14.5
4				---	---	---	9.0	7.5	8.0	14.5	13.0	14.0
5				---	---	---	8.0	7.5	8.0	14.0	13.0	13.5
6				3.5	3.0	3.0	7.5	7.0	7.0	14.5	13.5	14.0
7				4.0	3.0	3.5	7.5	7.0	7.0	15.0	14.0	14.5
8				3.5	2.5	3.0	8.5	7.5	8.0	15.5	14.5	14.5
9				2.5	1.5	2.0	8.5	8.0	8.5	14.5	14.0	14.5
10				2.5	1.5	2.0	9.5	8.0	9.0	14.5	13.5	14.0
11				3.0	1.5	2.0	10.0	9.0	9.5	15.5	14.0	14.5
12				3.0	1.5	2.0	12.0	10.0	11.0	15.5	15.5	15.5
13				2.5	2.0	2.0	12.0	11.5	11.5	16.0	15.0	15.5
14				3.0	1.5	2.0	11.5	10.0	11.0	16.0	15.5	16.0
15				3.5	1.5	2.5	10.0	9.0	9.5	15.5	14.5	15.0
16				4.5	2.5	3.5	9.0	8.5	9.0	14.0	13.5	14.0
17				4.5	4.0	4.0	11.0	9.0	9.5	14.0	13.0	13.5
18				5.5	4.0	4.5	11.5	10.5	11.0	14.0	13.5	13.5
19				6.0	4.5	5.0	11.5	11.0	11.0	14.5	13.0	13.5
20				7.0	5.5	6.0	11.5	10.5	11.0	15.5	14.5	15.0
21				7.0	6.0	6.5	12.5	10.5	11.5	17.0	15.5	16.5
22				6.0	5.5	6.0	12.0	10.5	11.0	19.5	17.0	18.0
23				6.0	5.5	5.5	11.5	10.0	10.5	20.0	19.0	19.5
24				6.0	4.5	5.5	10.0	10.0	10.0	20.5	19.0	19.5
25				6.0	5.5	5.5	10.0	10.0	10.0	21.0	19.0	20.0
26				6.5	5.5	6.0	12.5	10.0	11.0	21.5	20.0	20.5
27				7.0	6.0	6.5	14.0	12.5	13.0	21.5	20.5	21.0
28				7.5	6.0	7.0	14.0	13.0	13.5	21.0	18.5	20.0
29				5.5	2.5	3.5	16.0	13.5	14.5	18.0	17.5	17.5
30				3.5	2.5	3.0	16.5	15.5	16.0	17.5	16.0	16.5
31				5.5	3.5	4.5	---	---	---	16.0	15.5	15.5
MONTH				7.5	1.5	4.0	16.5	5.0	10.0	21.5	13.0	16.0

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	15.0	15.5	22.5	21.5	21.5	24.0	22.0	23.0	23.5	23.0	23.5
2	16.0	15.5	16.0	22.5	21.0	22.0	24.5	23.5	24.0	23.0	22.5	22.5
3	16.0	15.5	15.5	23.5	22.5	23.0	25.0	24.0	25.0	23.0	22.0	22.5
4	17.0	15.5	16.0	24.0	23.0	23.5	26.0	24.0	25.0	22.5	21.0	21.0
5	18.5	17.0	17.5	24.5	23.5	24.0	25.5	25.0	25.0	21.0	20.0	20.5
6	19.5	18.5	18.5	24.0	22.5	23.0	26.0	24.0	25.0	20.0	19.0	19.5
7	21.0	19.5	20.0	22.5	21.0	21.5	26.0	24.5	25.5	19.5	18.0	19.0
8	23.0	21.0	22.0	21.5	21.0	21.5	26.5	24.5	25.5	19.5	18.5	19.0
9	24.5	22.5	23.5	21.5	20.5	21.0	26.0	25.5	25.5	19.5	18.5	19.0
10	26.0	24.0	25.0	21.0	20.5	21.0	25.5	24.5	24.5	20.5	19.0	19.5
11	26.5	25.0	26.0	22.0	21.0	21.5	25.0	24.0	24.5	21.5	19.5	20.5
12	26.5	25.5	26.0	23.0	21.5	22.5	25.0	24.0	24.5	21.5	20.5	21.0
13	26.0	25.0	25.5	23.5	22.5	23.0	25.0	24.0	24.5	22.0	21.0	21.5
14	25.0	24.5	25.0	24.5	23.0	24.0	25.5	24.0	25.0	22.5	21.5	22.0
15	24.5	23.5	24.0	25.0	24.0	24.5	26.5	25.0	25.5	22.0	20.0	21.0
16	23.5	22.5	23.0	25.5	24.5	25.0	27.0	25.5	26.5	20.0	19.0	19.5
17	22.5	21.0	22.0	25.0	24.5	25.0	26.5	26.0	26.5	19.0	18.0	18.5
18	21.0	20.5	20.5	25.0	24.0	24.0	26.0	25.5	26.0	18.5	17.5	18.0
19	21.0	20.5	20.5	24.0	23.0	23.5	25.5	24.0	25.0	18.0	17.0	17.5
20	23.5	21.5	22.5	24.0	23.0	23.5	24.5	23.5	23.5	19.0	17.0	18.0
21	24.5	23.0	23.5	23.5	22.5	23.0	23.5	22.5	23.0	19.5	18.0	18.5
22	24.5	22.5	23.5	23.0	22.0	22.5	23.5	22.5	23.0	19.5	18.0	19.0
23	24.0	22.5	23.5	24.0	22.5	23.0	23.0	22.5	23.0	20.0	18.5	19.5
24	24.0	22.5	23.0	24.5	23.5	24.0	23.0	22.5	22.5	21.0	19.5	20.5
25	23.0	21.0	22.0	24.5	23.5	24.0	23.5	22.0	22.5	21.5	20.5	21.0
26	23.5	22.0	22.5	24.0	23.0	23.5	23.5	22.5	23.0	21.0	19.5	20.5
27	23.0	21.5	22.5	23.5	21.5	22.5	23.5	22.5	23.0	19.5	18.0	18.5
28	24.0	22.0	23.0	21.0	20.5	21.0	23.5	22.5	23.0	18.0	16.5	17.0
29	24.0	23.0	23.5	21.5	20.0	21.0	23.5	22.5	23.0	16.5	16.0	16.0
30	23.5	22.5	23.0	21.5	21.0	21.5	24.0	23.0	23.0	16.0	15.0	15.5
31	---	---	---	23.0	21.0	22.0	24.5	23.0	23.5	---	---	---
MONTH	26.5	15.0	22.0	25.5	20.0	23.0	27.0	22.0	24.5	23.5	15.0	19.5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	427	358	407	331	321	326	198	191	193	274	255	266
2	433	377	403	347	335	342	211	199	204	255	250	253
3	459	401	440	349	336	343	243	212	226	266	256	262
4	453	403	430	348	339	342	244	232	239	275	266	269
5	438	382	418	360	351	357	256	228	239	286	268	272
6	440	378	402	373	363	371	236	225	228	287	283	285
7	482	450	462	384	370	379	223	207	213	293	284	287
8	452	400	418	386	373	381	207	197	200	294	286	291
9	417	396	403	384	376	381	204	198	200	307	292	297
10	446	418	435	390	375	382	211	204	207	318	301	308
11	441	427	434	431	348	383	221	210	215	322	307	314
12	441	384	428	440	358	400	223	192	213	356	321	336
13	468	291	412	356	320	332	192	122	151	379	348	363
14	450	347	374	335	322	328	124	112	120	395	373	387
15	362	335	343	341	330	335	140	122	129	390	374	384
16	346	331	339	334	263	300	146	140	144	417	386	400
17	356	346	351	312	238	265	147	143	145	417	406	410
18	374	348	364	249	239	243	152	147	149	406	395	401
19	373	297	348	267	250	258	156	150	154	407	393	398
20	408	337	370	277	268	271	167	156	161	424	409	416
21	349	332	340	280	227	247	182	168	175	459	423	442
22	346	333	341	246	212	222	247	183	207	466	443	451
23	389	346	373	218	207	212	220	198	211	446	433	437
24	339	215	262	236	219	228	215	206	210	543	434	467
25	244	199	213	237	200	218	210	200	206	627	537	574
26	216	199	208	218	189	202	215	205	209	669	608	636
27	238	216	234	193	184	188	212	204	207	629	543	586
28	264	239	250	207	193	199	344	205	246	564	517	542
29	284	264	273	203	189	199	318	247	268	517	470	490
30	305	285	293	193	186	188	272	261	267	470	449	457
31	327	306	314	---	---	---	272	266	269	483	461	471
MONTH	482	199	357	440	184	294	344	112	200	669	250	392

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	514	469	487	225	215	222	255	244	250	280	268	274
2	548	507	527	---	---	---	244	232	239	287	276	281
3	549	510	528	---	---	---	231	216	223	294	288	290
4	530	463	493	---	---	---	214	193	207	291	206	244
5	492	428	446	---	---	---	187	118	140	199	163	179
6	458	421	433	313	274	297	117	99	104	173	117	137
7	458	419	436	291	265	281	125	107	113	188	122	175
8	430	411	419	265	260	263	156	129	149	196	132	173
9	410	393	399	271	260	265	152	151	152	187	153	164
10	391	372	382	293	271	282	153	152	152	168	142	157
11	409	383	391	303	294	298	157	153	155	166	120	150
12	408	382	394	314	298	306	165	157	161	212	130	170
13	395	359	378	460	305	331	178	166	172	213	208	210
14	356	330	339	497	341	427	199	179	188	214	208	211
15	331	249	291	331	291	315	203	196	199	217	204	209
16	245	197	216	289	271	278	203	178	191	223	216	219
17	196	189	191	272	248	258	178	171	174	236	221	228
18	192	188	190	246	239	242	176	172	173	247	233	240
19	200	192	196	240	230	235	178	171	174	260	240	248
20	205	198	201	231	224	227	185	179	182	260	251	256
21	212	203	208	229	217	224	190	186	188	265	249	256
22	219	211	215	214	205	208	200	191	196	253	236	242
23	230	220	225	205	203	204	209	200	204	238	232	235
24	235	209	219	211	204	207	215	209	211	249	233	242
25	211	208	210	217	211	214	219	214	216	255	239	249
26	210	202	205	224	217	220	232	219	226	272	257	266
27	223	210	216	232	224	228	243	230	237	288	271	278
28	228	218	222	241	231	235	255	240	247	279	259	274
29	216	213	214	262	237	252	265	250	256	256	175	221
30	---	---	---	251	237	246	271	265	268	176	111	130
31	---	---	---	256	245	250	---	---	---	110	106	107
MONTH	549	188	320	497	203	260	271	99	192	294	106	217

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	125	109	119	341	243	301	300	287	294	480	444	463
2	131	126	129	269	248	257	326	300	307	480	447	466
3	142	131	137	249	235	240	344	328	333	447	389	435
4	145	141	144	265	242	255	344	314	327	432	212	340
5	163	145	153	267	235	259	354	339	345	427	307	341
6	174	164	169	227	166	197	356	337	348	350	327	338
7	192	176	185	195	121	138	365	339	354	355	341	348
8	209	193	201	129	119	123	354	306	319	385	342	369
9	227	209	217	137	128	133	347	322	339	417	386	404
10	246	228	237	139	136	137	372	342	354	419	411	416
11	263	247	255	151	139	144	383	373	377	432	415	423
12	285	265	275	152	144	148	393	385	391	451	433	444
13	308	286	295	165	154	159	408	390	397	464	449	458
14	323	307	315	177	166	171	411	400	406	471	458	467
15	342	324	336	193	179	185	400	389	394	468	453	458
16	349	334	341	211	192	201	404	394	398	479	466	474
17	352	337	349	218	204	212	411	396	406	483	473	478
18	360	348	351	227	216	219	407	396	403	486	475	480
19	371	353	360	227	219	224	425	403	416	485	476	481
20	361	337	349	240	226	232	426	412	419	500	480	491
21	360	335	340	253	240	246	436	414	428	496	485	490
22	368	347	356	257	242	251	428	399	420	536	487	511
23	377	350	367	238	223	226	404	391	398	542	520	535
24	380	344	374	226	216	220	429	400	414	520	499	506
25	324	220	282	242	223	230	442	425	437	515	504	509
26	269	244	256	254	241	246	435	414	427	506	496	501
27	253	242	247	262	237	253	426	414	420	527	507	518
28	282	253	265	270	244	254	434	422	428	547	519	531
29	313	282	294	247	236	240	451	433	442	564	526	541
30	324	306	315	260	247	251	462	449	453	570	516	548
31	---	---	---	287	262	273	474	450	466	---	---	---
MONTH	380	109	267	341	119	214	474	287	389	570	212	459
YEAR	669	99	297									

01390500 SADDLE RIVER AT RIDGEWOOD, NJ

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, Hydrologic Unit 02030103, on left bank 15 ft upstream from bridge on State Highway 17 in Ridgewood and 2.8 mi upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to September 1974, October 1977 to current year. Operated as a maximum-stage gage water years 1975-77.

REVISED RECORDS.--WRD-NJ 1974: 1971.

GAGE.--Water-stage recorder. Datum of gage is 71.74 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. No gage-height record June 22 to July 9. The flow past this station is affected by pumpage from wells by Hackensack Water Co. and others.

AVERAGE DISCHARGE.--27 years (water years 1955-74, 1978-84), 36.1 ft³/s, 22.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft³/s Nov. 8, 1977, gage height, 12.25 ft; minimum daily, 0.2 ft³/s Sept. 17, 18, 1966.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood on July 23, 1945, reached a discharge of 6,400 ft³/s, at site 1.6 mi upstream, drainage area, 19.1 mi², by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 24	0545	489	4.23	Feb. 24	0700	412	3.97
Dec. 13	1415	989	5.55	Apr. 5	1645	1560	6.80
Dec. 22	1645	511	4.30	May 4	0700	395	3.91
Dec. 28	2130	489	4.23	May 29	2115	*1570	6.84
Feb. 15	1230	409	3.96	July 7	Unknown	1460	6.59

Minimum discharge, 4.3 ft³/s Oct. 4, 8, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	9.6	36	40	21	53	117	42	161	155	31	9.2
2	9.8	9.4	32	39	20	44	98	37	128	84	24	7.7
3	6.6	10	32	37	21	40	79	41	107	53	22	55
4	5.2	10	123	36	90	37	79	203	95	42	21	120
5	5.4	9.4	77	36	47	52	998	92	81	128	20	25
6	8.3	9.5	71	35	39	83	259	55	71	314	20	15
7	5.5	9.7	128	34	32	52	151	49	65	620	19	12
8	4.7	9.3	52	32	25	41	122	99	57	143	23	11
9	4.9	9.2	40	29	24	40	107	109	51	99	17	11
10	4.7	13	37	29	23	37	98	59	45	82	17	13
11	4.9	33	34	31	29	36	89	49	41	73	16	13
12	42	19	129	28	43	33	83	54	36	62	16	9.2
13	33	12	615	26	37	37	75	59	39	52	15	8.4
14	23	12	264	26	41	133	80	60	38	46	14	8.8
15	10	14	109	25	184	87	140	44	32	41	12	9.5
16	9.9	104	81	26	86	89	259	40	29	99	12	9.9
17	6.2	30	67	23	56	92	123	35	28	53	11	8.3
18	6.7	20	59	22	48	68	96	33	31	73	10	7.8
19	54	18	56	23	47	58	86	34	50	51	13	7.6
20	16	17	47	25	47	54	78	38	29	35	22	7.5
21	9.4	124	40	21	40	58	68	42	25	47	13	7.4
22	8.2	37	213	21	36	58	61	33	24	41	11	6.8
23	38	25	114	22	35	47	64	45	23	33	12	6.6
24	246	28	72	34	156	43	71	53	65	31	12	6.6
25	36	167	67	55	59	41	60	31	157	27	9.5	6.9
26	21	67	65	36	45	40	54	28	42	25	8.9	6.4
27	16	37	42	31	38	35	47	28	29	87	8.2	6.3
28	13	52	144	30	131	43	45	48	26	39	8.3	7.8
29	11	135	123	25	89	78	44	497	25	29	7.8	7.6
30	9.7	50	59	23	---	86	43	808	73	26	7.8	6.9
31	9.6	---	45	24	---	118	---	334	---	25	13	---
TOTAL	703.7	1100.1	3073	924	1589	1813	3774	3179	1703	2715	466.5	438.2
MEAN	22.7	36.7	99.1	29.8	54.8	58.5	126	103	56.8	87.6	15.0	14.6
MAX	246	167	615	55	184	133	998	808	161	620	31	120
MIN	4.7	9.2	32	21	20	33	43	28	23	25	7.8	6.3
CFSM	1.05	1.70	4.59	1.38	2.54	2.71	5.83	4.77	2.63	4.06	.69	.68
IN.	1.21	1.89	5.29	1.59	2.74	3.12	6.50	5.47	2.93	4.68	.80	.75

CAL YR 1983 TOTAL 17488.7 MEAN 47.9 MAX 615 MIN 1.7 CFSM 2.22 IN. 30.12
WTR YR 1984 TOTAL 21478.5 MEAN 58.7 MAX 998 MIN 4.7 CFSM 2.72 IN. 36.99

01391000 HOHOKUS BROOK AT HOHOKUS, NJ

LOCATION.--Lat 40°59'52", long 74°06'48", Bergen County, Hydrologic Unit 02030103, on left bank 500 ft upstream from bridge on Maple Avenue in Hohokus, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--16.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1954 to September 1973, October 1977 to current year. Operated as a crest-stage record station, water years 1974-77.

REVISED RECORDS.--WDR NJ-77-1: 1955(M), 1968(M), 1976(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 120.09 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good except those above 100 ft³/s, which are poor. Some regulation at low and medium flows caused by unknown sources.

AVERAGE DISCHARGE.--26 years, (water years 1955-73, 1978-84) 33.4 ft³/s, 27.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s Nov. 8, 1977, gage height, 7.06 ft, from rating curve extended above 750 ft³/s by computation of peak flow over dam; minimum, 1.9 ft³/s Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1330	726	3.19	July 5	2330	858	3.37
Apr. 5	1600	*2570	5.26	July 7	0830	1050	3.62
May 29	1630	1390	4.00	Sept. 3	0545	454	2.76
May 30	1215	1150	3.73				

Minimum discharge, 9.0 ft³/s Oct. 10, gage height, 1.28 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	20	37	45	31	55	111	45	143	157	37	18
2	25	20	33	45	29	48	95	42	108	88	33	17
3	20	21	34	44	34	45	80	58	88	53	30	178
4	17	21	92	44	99	41	83	191	79	47	29	73
5	17	19	67	42	57	51	1050	83	68	112	28	32
6	19	18	65	41	50	78	325	59	63	250	29	26
7	16	18	101	40	41	55	152	54	58	545	29	23
8	15	17	49	37	34	45	114	109	53	138	31	22
9	14	18	41	34	33	46	98	102	49	86	26	22
10	14	27	38	35	33	41	87	62	45	71	26	21
11	14	50	34	38	40	40	78	55	42	64	25	21
12	46	30	129	33	51	37	69	63	38	58	24	19
13	41	22	461	33	47	41	63	60	39	50	25	19
14	39	20	251	34	50	135	78	60	39	45	24	21
15	23	25	121	32	179	91	139	49	36	41	22	20
16	17	87	93	31	101	85	228	45	33	99	22	20
17	16	36	81	30	63	87	119	42	32	60	21	22
18	17	28	70	31	54	68	113	40	37	74	20	21
19	68	26	63	28	53	60	101	41	45	56	39	21
20	27	23	54	29	54	55	83	45	35	41	37	20
21	20	88	50	28	46	62	73	44	31	52	22	19
22	18	40	176	26	41	65	64	38	28	48	20	17
23	51	30	122	28	41	53	69	65	28	44	25	17
24	193	33	72	42	109	47	73	63	54	52	21	21
25	55	121	55	64	58	45	62	40	142	43	19	17
26	34	64	49	49	46	44	55	35	43	32	18	16
27	29	40	47	44	39	44	50	32	34	91	18	17
28	26	50	127	41	107	49	49	57	30	51	18	18
29	22	104	121	35	90	76	50	376	29	37	19	17
30	21	48	60	33	---	87	48	608	103	34	25	17
31	20	---	49	34	---	108	---	278	---	32	24	---
TOTAL	993	1164	2842	1150	1710	1884	3859	2941	1652	2651	786	812
MEAN	32.0	38.8	91.7	37.1	59.0	60.8	129	94.9	55.1	85.5	25.4	27.1
MAX	193	121	461	64	179	135	1050	608	143	545	39	178
MIN	14	17	33	26	29	37	48	32	28	32	18	16
CFSM	1.95	2.37	5.59	2.26	3.60	3.71	7.87	5.79	3.36	5.21	1.55	1.65
IN.	2.25	2.64	6.45	2.61	3.88	4.27	8.75	6.67	3.75	6.01	1.78	1.84

CAL YR 1983 TOTAL 18410 MEAN 50.4 MAX 461 MIN 11 CFSM 3.07 IN. 41.76
WTR YR 1984 TOTAL 22444 MEAN 61.3 MAX 1050 MIN 14 CFSM 3.74 IN. 50.91

01391200 SADDLE RIVER AT FAIR LAWN, NJ

LOCATION.--Lat 40°56'30", long 74°05'36", Bergen County, Hydrologic Unit 02030103, at bridge on Century Road in Fair Lawn, and 0.8 mi downstream from Hohokus Brook.

DRAINAGE AREA.--45.2 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 13...	1130	69	355	7.6	18.0	7.5	78	12	5400	240
FEB 21...	1120	119	475	7.7	7.0	11.6	96	--	<200	<200
APR 12...	1030	201	455	7.6	10.5	10.2	91	4.2	350	33
JUN 11...	1200	124	442	7.6	23.0	8.5	98	2.9	1600	5400
JUL 26...	1130	93	460	7.9	20.0	9.1	99	3.3	1300	<20
AUG 29...	1030	47	575	7.5	21.5	8.2	92	4.7	20	50

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 13...	120	32	8.9	25	2.8	77	26	38	.20
FEB 21...	140	38	10	35	2.3	91	30	61	<.10
APR 12...	130	38	9.0	32	2.3	86	34	62	<.10
JUN 11...	130	37	9.6	29	2.5	89	30	52	<.10
JUL 26...	160	45	11	30	2.8	102	32	51	.10
AUG 29...	160	43	13	44	5.0	112	41	65	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	9.0	211	.235	1.9	1.24	2.6	4.5	.470	5.4
FEB 21...	9.9	295	.100	1.9	1.79	2.3	4.2	.530	5.1
APR 12...	9.5	277	.093	2.0	.770	1.1	3.0	.240	2.7
JUN 11...	9.8	--	.470	2.2	1.32	2.1	4.3	.470	3.2
JUL 26...	12	--	E.360	E3.0	1.27	2.1	--	.750	4.2
AUG 29...	12	322	.590	3.5	1.88	2.3	5.8	1.21	4.8

01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, Hydrologic Unit 02030103, on left bank 560 ft upstream from bridge on Outwater Lane in Lodi and 3.2 mi upstream from mouth. Water-quality samples collected at bridge on Outwater Lane at high flows.

DRAINAGE AREA.--54.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1923 to current year.

PERIOD RECORDS.--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD-NJ 1969: 1967. WRD-NJ 1970: 1968, 1969.

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

REMARKS.--Water-discharge records fair. No gage-height record Mar. 11 to Apr. 19. Occasional regulation at low flow by mills above station. Diversion above station by Hackensack Water Co., for municipal supply (records given herein).

AVERAGE DISCHARGE.--61 years, 102 ft³/s, 25.37 in/yr, adjusted for diversion since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s Nov. 9, 1977, gage height, 12.36 ft, from high-water mark in gage house; minimum, 1.0 ft³/s May 25, 1938, gage height, 1.03 ft, site and datum then in use; minimum daily, 6.0 ft³/s Aug. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 24	0545	1510	5.18	May 30	1630	2840	8.23
Dec. 13	1515	2610	7.65	June 25	0115	1360	4.91
Dec. 22	1715	1460	5.09	July 6	0215	2040	6.26
Dec. 28	2145	1260	4.73	July 7	1415	2990	8.59
Apr. 5	Unknown	*3350	9.51	Sept. 3	2245	1490	5.14
May 29	0400	1220	4.67				

Minimum discharge, 16 ft³/s Oct. 11, gage height 1.69 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	37	91	136	80	169	332	141	469	573	101	57
2	44	36	75	132	73	144	283	128	342	288	109	49
3	35	40	78	129	84	128	236	138	269	205	94	226
4	27	43	260	126	276	120	241	622	242	152	89	534
5	47	35	172	122	178	158	2970	266	211	256	91	138
6	35	35	151	121	155	236	847	174	190	1060	89	81
7	22	35	252	115	121	160	439	158	178	2050	96	68
8	21	35	124	107	97	129	342	273	161	489	99	61
9	20	34	103	102	90	131	299	350	148	286	79	57
10	20	54	95	104	88	119	258	183	137	238	78	61
11	18	100	87	112	110	122	237	156	131	239	77	60
12	147	63	227	94	136	112	223	166	121	207	73	53
13	125	43	1960	91	130	122	212	180	148	170	75	50
14	101	37	1100	94	124	389	232	178	149	154	72	51
15	40	47	366	90	562	262	405	139	117	142	68	56
16	32	225	262	85	296	257	749	128	104	269	65	53
17	26	73	224	84	178	262	384	119	100	193	64	49
18	25	51	197	81	152	204	330	113	113	249	60	49
19	212	44	183	84	148	181	289	112	149	182	63	48
20	58	42	160	75	147	168	234	127	111	134	124	46
21	38	232	144	75	129	184	210	157	96	185	69	45
22	33	86	717	74	116	188	189	109	88	159	61	43
23	124	59	404	75	113	155	193	144	83	127	78	41
24	836	70	223	108	379	142	209	182	124	119	67	44
25	146	306	169	184	182	136	183	110	572	110	57	46
26	71	151	151	139	144	133	167	104	129	102	54	41
27	55	86	143	115	121	126	152	96	103	306	54	38
28	50	105	422	113	257	144	147	173	90	163	54	49
29	44	267	460	95	275	229	144	1090	85	116	53	44
30	38	115	188	89	---	255	143	2600	343	108	53	40
31	37	---	149	94	---	329	---	1160	---	103	72	---
TOTAL	2628	2586	9337	3245	4941	5594	11279	9776	5303	9134	2338	2278
MEAN	84.8	86.2	301	105	170	180	376	315	177	295	75.4	75.9
MAX	836	306	1960	184	562	389	2970	2600	572	2050	124	534
MIN	18	34	75	74	73	112	143	96	83	102	53	38
(†)	1.5	1.5	1.5	0	0	0	0	0	0	0	0	0
MEAN‡	86.3	87.7	302	105	170	180	376	315	177	295	75.4	75.9
CFSM‡	1.58	1.61	5.53	1.92	3.11	3.30	6.89	5.77	3.24	5.40	1.38	1.39
IN.‡	1.82	1.79	6.37	2.21	3.37	3.81	7.68	6.66	3.61	6.22	1.59	1.55

CAL YR 1983 TOTAL 54373 MEAN 149 MAX 1960 MIN 18 MEAN‡ 155 CFSM‡ 2.83 IN.‡ 38.45
WTR YR 1984 TOTAL 68439 MEAN 187 MAX 2970 MIN 18 MEAN‡ 187 CFSM‡ 3.42 IN.‡ 46.70

† Diversion, equivalent in cubic feet per second, above station by Hackensack Water Co. Records of diversion furnished by Hackensack Water Co.

‡ Adjusted for diversion.

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
13...	1330	82	275	7.6	18.0	7.5	78	--	>24000	16000
JAN										
17...	1245	76	559	7.8	2.0	11.6	83	5.7	200	200
APR										
12...	1200	222	460	7.7	12.0	9.9	91	5.3	350	17
JUN										
11...	1330	134	460	7.4	24.0	6.8	80	1.6	330	110
JUL										
26...	1330	104	490	7.8	20.5	7.9	86	3.0	1100	<200
AUG										
29...	1230	50	590	7.5	22.0	7.0	79	4.4	2300	1400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
13...	100	28	7.2	19	2.4	67	23	31	.10
JAN									
17...	180	51	13	43	3.0	115	40	77	<.10
APR									
12...	130	38	8.9	32	2.3	85	34	63	<.10
JUN									
11...	150	44	10	29	2.4	103	32	53	<.10
JUL									
26...	150	41	11	31	3.2	114	33	54	<.10
AUG									
29...	180	49	14	42	4.4	124	40	69	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
13...	11	181	.160	1.7	.410	1.5	3.2	.430	5.8
JAN									
17...	13	345	.068	2.7	E2.44	E2.4	--	.620	4.6
APR									
12...	9.5	287	.093	2.0	.660	1.1	3.1	.250	2.4
JUN									
11...	11	330	.410	2.4	.540	.94	3.4	.330	3.4
JUL									
26...	11	342	E.290	E3.1	.230	.91	--	.460	3.5
AUG									
29...	12	328	.510	3.9	.990	1.9	5.8	1.10	3.8

PASSAIC RIVER BASIN

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
13...	1330	<.5	40	2	<10	110	3	10	10
JUN									
11...	1330	<.5	30	2	<10	80	1	<10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
13...	720	15	110	<.1	3	<1	20	<1
JUN								
11...	640	3	130	.3	3	<1	30	1

01392210 THIRD RIVER AT PASSAIC, NJ

LOCATION.--Lat 40°49'47", long 74°08'32", Passaic County, Hydrologic Unit 02030103, on right bank 400 ft upstream from bridge on State Highway 3, 0.8 mi south of Passaic, 1.2 mi upstream from Passaic River.

DRAINAGE AREA.--11.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1977 to current year

GAGE.--Water-stage recorder. Datum of gage is 22.15 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for January, which are poor. Some regulation from ponds upstream.

AVERAGE DISCHARGE.--7 years, 23.2 ft^3/s, 26.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft^3/s Nov. 8, 1977, gage height, 8.25 ft, from rating curve extended above 300 ft^3/s) on basis of contracted-opening measurement of peak flow; minimum, 0.84 ft^3/s July 3, 1981, gage height, 1.39 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 12	1645	618	4.68
Dec. 13	1100	800	5.13
Dec. 14	0200	603	4.64
Dec. 22	1245	737	4.97
Apr. 5	1515	*829	4.90
May 29	1815	551	4.22
May 30	0515	816	4.87
June 25	0045	804	4.84
July 7	0845	680	4.53

Minimum discharge, 4.4 ft^3/s Sept. 27, gage height, 1.74 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.9	15	9.1	12	22	42	18	49	66	10	5.9
2	13	8.5	13	8.8	11	20	33	17	41	17	10	5.5
3	7.7	8.7	16	8.5	16	18	27	25	30	19	10	46
4	7.1	8	114	8.3	57	17	117	133	26	13	9.6	41
5	19	8.1	25	8.1	33	42	614	25	23	46	11	8.4
6	13	8.0	48	7.7	26	37	94	20	22	65	10	7.1
7	6.6	7.9	34	7.5	18	20	54	20	20	206	27	6.7
8	6.3	7.7	18	7.3	15	18	42	48	19	28	16	6.4
9	6.6	8.3	16	7.1	14	19	35	37	18	20	11	6.4
10	6.4	39	15	16	14	17	32	20	16	17	11	5.7
11	6.1	34	14	17	20	18	29	19	15	37	9.8	6.3
12	101	12	143	12	20	16	27	25	14	25	14	5.9
13	17	9.3	454	11	16	47	25	21	14	14	10	6.1
14	36	9.5	188	12	16	125	40	27	14	13	9.0	6.5
15	8.6	51	47	10	163	37	60	19	15	12	9.0	9.6
16	7.1	95	35	9.1	42	30	98	17	12	26	7.7	6.6
17	7.2	15	28	8.4	26	26	34	15	12	12	7.1	6.9
18	7.0	12	25	8.1	22	23	29	15	18	53	6.7	6.2
19	53	10	22	12	24	21	27	15	29	14	6.6	4.9
20	9.0	9.8	20	10	20	20	24	45	13	12	16	5.4
21	7.8	74	18	9.3	18	31	22	46	12	67	7.1	10
22	7.3	13	227	8.8	17	22	21	16	11	17	6.3	11
23	60	11	40	8.4	20	18	31	29	11	13	25	14
24	159	21	28	23	73	17	27	21	50	12	8.5	14
25	18	84	30	29	21	17	21	14	139	10	6.8	13
26	14	20	36	19	18	17	19	31	15	9.2	6.4	5.4
27	11	15	32	17	17	15	19	20	12	91	6.2	4.7
28	9.9	38	112	15	98	28	19	46	12	14	5.8	11
29	10	61	33	13	33	64	18	244	11	12	5.5	6.0
30	9.1	17	11	13	---	56	18	365	42	11	5.9	5.1
31	9.0	---	9.5	16	---	60	---	148	---	11	9.2	---
TOTAL	667.8	725.2	1866.5	369.5	900	938	1698	1561	735	982.2	314.2	297.7
MEAN	21.5	24.2	60.2	11.9	31.0	30.3	56.6	50.4	24.5	31.7	10.1	9.92
MAX	159	95	454	29	163	125	614	365	139	206	27	46
MIN	6.1	7.7	9.5	7.1	11	15	18	14	11	9.2	5.5	4.7
CFSM	1.82	2.05	5.10	1.01	2.63	2.57	4.80	4.27	2.08	2.69	.86	.84
IN.	2.11	2.29	5.88	1.16	2.84	2.96	5.35	4.92	2.32	3.10	.99	.94

CAL YR 1983 TOTAL 10651.2 MEAN 29.2 MAX 454 MIN 5.8 CFSM 2.47 IN. 33.58
WTR YR 1984 TOTAL 11055.1 MEAN 30.2 MAX 614 MIN 4.7 CFSM 2.56 IN. 34.85

RESERVOIRS IN PASSAIC RIVER BASIN

01379990 SPLITROCK RESERVOIR.--Lat 40°57'40", long 74°27'45", Morris County, Hydrologic Unit 02030103, at dam on Beaver Brook, 2 mi northeast of Hibernia, NJ. DRAINAGE AREA, 5.50 mi². PERIOD OF RECORD, September 1925 to September 1931, December 1948 to September 1950, October 1953 to current year. Monthend contents only 1925-31, 1948-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by a concrete gravity dam with earth embankment; present dam constructed 1946-48 and sluice gate first closed Dec. 22, 1948. Prior to 1946, reservoir was formed by earthfill dam with crest about 20 ft lower. Capacity of spillway level, 3,310,000,000 gal, elevation, 835 ft. Flow is regulated by two 30-inch sluice gates. Flow is released for diversion for municipal supply of Jersey City. Records furnished by Jersey City, Bureau of Water.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 3,652,500,000 Apr. 5, 1973, elevation, 836.75 ft; minimum 1,522,800,000 gal Jan. 4, 1954, elevation, 824.20 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 3,573,300,000 gal Apr. 6, elevation, 836.35 ft; minimum, 3,197,100,000 gal many days in October, elevation, 834.45 ft.

01380900 BOONTON RESERVOIR.--Lat 40°53'. long 74°24', Morris County, Hydrologic Unit 02030103, at dam on Rockaway River at Boonton, NJ. DRAINAGE AREA, 119 mi². PERIOD OF RECORD, April 1904 to September 1950, October 1953 to current year. Monthend contents only 1904-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, hook gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by a cyclopean masonry dam with earth wings; dam completed and storage began in 1904. Total capacity at spillway level, 7,620,000,000 gal elevation, 305.25 ft of which 7,366,000,000 gal is usable contents above elevation 259.75 ft, sill of lowest outlet gate. Flow regulated by flashboards, 3 outlets in gatehouse at head of conduit and by two 48-inch pipes (bottom of sluice pipes at elevation 205 ft). Water is diverted from reservoir for municipal supply of Jersey City. Records furnished by Jersey City, Bureau of Water.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,545,600,000 gal May 31, 1984, elevation, 308.81 ft; minimum, 1,445,000,000 gal Jan. 31, 1981, elevation 274.71 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,545,600,000 gal May 31, elevation, 308.81 ft; minimum, 5,408,800,000 gal Oct. 23, elevation, 296.37 ft.

01382100 CANISTEAR RESERVOIR.--Lat 41°06'30", long 74°29'30", Sussex County, Hydrologic Unit 02030103, at dam on Pacock Brook, 1.8 mi northeast of Stockholm, NJ. DRAINAGE AREA, 5.6 mi². PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earth-embankment type dam, completed about 1896. Capacity at spillway level, 2,407,000,000 gal, elevation, 1,086.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply for City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Records furnished by City of Newark, Division of Water Supply.

01382200 OAK RIDGE RESERVOIR.--Lat 41°02'30", long 74°30'10", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 0.9 mi southwest of Oak Ridge, NJ. DRAINAGE AREA, 27.3 mi². PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1924-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with concrete-core wall and ogee overflow section; dam constructed between 1880-92; dam raised 10 ft during 1917-19. Capacity at spillway level, 3,895,000,000 gal, elevation, 846.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Records furnished by City of Newark, Division of Water Supply.

01382300 CLINTON RESERVOIR.--Lat 41°04'30", long 74°27'00", Passaic County, Hydrologic Unit 02030103, at dam on Clinton Brook, 2.0 mi north of Newfoundland, NJ. DRAINAGE AREA, 10.5 mi². PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam constructed between 1889-92. Capacity at spillway level, 3,518,000,000 gal, elevation, 992.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Records furnished by City of Newark, Division of Water Supply.

01382380 CHARLOTTEBURG RESERVOIR.--Lat 41°01'34", long 74°25'30", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 1.1 mi upstream from Macopin River, and 1.5 mi southeast of Newfoundland, NJ. DRAINAGE AREA, 56.2 mi². PERIOD OF RECORD, May 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete-masonry dam and earth embankment, with concrete spillway at elevation 738.00 ft; storage began May 19, 1961. Spillway equipped with Bascule gate 5 ft high. Capacity, 2,964,000,000 gal, elevation, 743.00 ft, top to Bascule gate. No dead storage. Outflow is controlled by sluice and automatic Bascule gates. Water diverted from reservoir since May 21, 1961, for municipal supply of City of Newark. Records furnished by City of Newark, Division of Water Supply.

REVISION.--WRD-NJ 1974: Station number.

01382400 ECHO LAKE.--Lat 41°03'00", long 74°24'30", Passaic County, Hydrologic Unit 02030103, at Echo Lake Dam on Macopin River, 1.6 mi north of Charlotteburg, NJ, and 1.9 mi upstream from mouth. DRAINAGE AREA, 4.35 mi². PERIOD OF RECORD, October 1927 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake is formed by earth-embankment type dam completed about 1925. Capacity at spillway level, 1,583,000,000 gal, elevation, 893.0 ft, with provision for additional storage of 180,000,000 gal at elevation 894.9 ft with flashboards. Usable contents, 1,045,000,000 gal above elevation 880.0 ft. Lake used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and water diverted to Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow to Macopin River controlled by operation of gates in gatehouse at dam and water released through pipe and canal to Charlotteburg Reservoir. Records furnished by City of Newark, Division of Water Supply.

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

01383000 GREENWOOD LAKE.--Lat 41°09'36", long 74°20'03", Passaic County, Hydrologic Unit 02030103, in gatehouse near right end of Greenwood Lake Dam on Wanaque River at Awosting. DRAINAGE AREA, 27.1 mi^2. PERIOD OF RECORD, June 1898 to November 1903, June 1907 to current year (gage heights only prior to October 1953). GAGE, water-stage recorder. Datum of gage is 608.86 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Oct. 1, 1931, staff gage on former railroad bridge at site 100 ft upstream at datum 89.75 ft lower.

Reservoir is formed by earthfill dam with concrete spillway; dam completed about 1837 and reconstruction completed in 1928 with crest of spillway 0.25 ft lower. Usable capacity, 6,860,000,000 gal between gage heights -4.00 ft, sill of gate, and 10.00 ft, crest of spillway. Dead storage, 7,140,000,000 gal. Outflow mostly regulated by two gates, 3.5 by 5.0 ft. Records given herein represent usable capacity. Lake used for recreation.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 9,528,000,000 gal Oct. 9-14, 1903, gage height, 14.25 ft, present datum; minimum, 3,160,000,000 gal several days in November 1900, gage height, 3.50 ft, present datum.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,710,000,000 gal Apr. 5, gage height, 12.95 ft; minimum, 4,342,000,000 gal Dec. 1, gage height, 5.70 ft.

01386990 WANAQUE RESERVOIR.--Lat 41°02'33", long 74°17'36", Passaic County, Hydrologic Unit 02030103, at Raymond Dam on Wanaque River at Wanaque. DRAINAGE AREA, 90.4 mi^2. PERIOD OF RECORD, February 1928 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by North Jersey District Water Supply Commission).

Reservoir is formed by earthfill with concrete-core wall main dam and seven secondary dams; dams completed in 1927 and storage began in March 1928. Total capacity of spillway level, 27,210,000,000 gal elevation, 300.3 ft. Capacity available by gravity at spillway level, 26,230,000,000 gal. Outflow mostly controlled by sluice gates in intake conduits in gage house. Water is diverted from reservoir for municipal supply. Diversion to reservoir from Post Brook and Ramapo River (see Passaic River Basin, diversions). Records furnished by North Jersey District Water Supply Commission.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 30,930,000,000 gal Apr. 6, 1984, elevation, 304.07 ft; minimum, 5,110,000,000 gal Dec. 26, 1964, elevation, 256.06 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 30,930,000,000 gal Apr. 6, elevation, 304.07 ft; minimum, 19,270,000,000 gal Oct. 1, 2, elevation, 287.55 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01379990	SPLITROCK RESERVOIR *		01380900	BOONTON RESERVOIR *		01382100	CANISTEAR RESERVOIR †	
Sept. 30	834.35	3,177	-	299.08	6,059	-	1,085.75	2,376	-
Oct. 31	834.85	3,276	+4.9	298.44	5,906	-7.6	1,080.20	1,831	-27.2
Nov. 30	835.35	3,375	+5.1	305.91	7,792	+97.2	1,077.60	1,589	-12.5
Dec. 31	835.30	3,365	-.5	305.77	7,755	-1.8	1,086.30	2,437	+42.3
CAL YR 1983	-	-	+.2	-	-	+.5	-	-	+.04
Jan. 31	835.05	3,316	-2.4	305.39	7,656	-4.9	1,086.00	2,407	-1.5
Feb. 29	835.25	3,356	+2.1	305.71	7,740	+4.5	1,086.00	2,407	0
Mar. 31	835.25	3,356	0	305.85	7,776	+1.8	1,086.10	2,417	+.5
Apr. 30	835.15	3,336	-1.0	307.46	8,195	+21.6	1,086.10	2,417	0
May 31	835.85	3,474	+6.9	308.81	8,546	+17.5	1,086.20	2,427	+.5
June 30	835.15	3,336	-7.1	307.33	8,161	-19.8	1,086.10	2,417	-.5
July 31	835.05	3,316	-1.0	307.40	8,179	+.9	1,086.00	2,407	-.5
Aug. 31	834.80	3,266	-2.5	306.15	7,854	-16.2	1,085.90	2,396	-.5
Sept. 30	834.45	3,197	-3.6	305.21	7,610	-12.6	1,085.80	2,386	-.5
WTR YR 1984	-	-	+.08	-	-	+6.6	-	-	+.04

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01382200	OAK RIDGE RESERVOIR †		01382300	CLINTON RESERVOIR †		01382380	CHARLOTTEBURG RESERVOIR †	
Sept. 30	820.00	928	-	980.30	2,090	-	730.10	1,675	-
Oct. 31	816.80	706	-11.1	974.70	1,518	-28.5	731.20	1,767	+4.6
Nov. 30	828.60	1,696	+51.1	976.30	1,674	+8.0	735.65	2,172	+20.8
Dec. 31	843.30	3,516	+90.8	988.00	3,006	+66.5	740.50	2,676	+25.2
CAL YR 1983	-	-	+9.2	-	-	+2.7	-	-	+3.0
Jan. 31	846.00	3,895	+18.9	989.90	3,249	+12.1	728.90	1,574	-55.0
Feb. 29	846.10	3,909	+.8	992.30	3,556	+16.4	743.35	3,008	+76.5
Mar. 31	846.20	3,924	+.7	992.30	3,556	0	743.30	3,002	-.3
Apr. 30	846.10	3,909	-.7	991.90	3,505	-2.6	743.10	2,977	-1.3
May 31	846.40	3,953	+2.2	992.60	3,595	+4.5	743.40	3,014	+1.9
June 30	846.10	3,909	-2.2	992.20	3,544	-2.6	738.45	2,455	-28.8
July 31	846.10	3,909	0	992.20	3,544	0	741.50	2,789	+16.7
Aug. 31	842.20	3,366	-27.1	991.90	3,505	-1.9	731.45	1,828	-47.9
Sept. 30	831.20	1,981	-71.4	988.10	3,019	-25.1	732.05	1,841	+.7
WTR YR 1984	-	-	+4.4	-	-	+3.9	-	-	+.7

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Gage height	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01382400 ECHO LAKE †			01383000 GREENWOOD LAKE **			01386990 WANAQUE RESERVOIR †		
Sept. 30	892.60	1,546	-	9.52	6,567	-	289.75	20,660	-
Oct. 31	893.00	1,583	+1.8	9.58	6,604	+1.8	287.55	19,270	-69.4
Nov. 30	893.10	1,592	+.5	5.79	4,392	-114	293.39	23,060	+195
Dec. 31	893.30	1,611	+1.0	e6.60	4,846	+22.7	302.71	29,870	+340
CAL YR 1983	-	-	+.04	-	-	-9.1	-	-	+41.2
Jan. 31	893.00	1,583	-1.4	e7.60	5,418	+28.5	301.39	28,850	-50.9
Feb. 29	893.30	1,611	+1.5	9.88	6,787	+73.0	302.51	29,720	+46.4
Mar. 31	893.20	1,601	-.5	10.39	7,102	+15.7	302.62	29,800	+4.0
Apr. 30	893.10	1,592	-.5	10.17	6,965	-7.1	302.51	29,720	-4.1
May 31	893.40	1,621	+1.4	11.24	7,631	+33.2	303.26	30,290	+28.4
June 30	893.10	1,592	-1.5	10.12	6,934	-35.9	300.96	28,520	-91.3
July 31	893.00	1,583	-.4	10.00	6,860	-3.7	301.85	29,200	+33.9
Aug. 31	892.80	1,564	-1.0	9.42	6,506	-17.7	298.27	26,490	-135
Sept. 30	892.60	1,546	-.9	8.86	6,166	-17.5	295.03	24,190	-119
WTR YR 1984	-	-	0	-	-	-1.7	-	-	+14.9

e Gage height estimated.
* Elevation at 0900.
** Gage height at 2400.
† Elevation at 0800 on first day of following month.

DIVERSIONS IN PASSAIC RIVER BASIN

01379510 Commonwealth Water Company diverts water from Passaic River, 1.2 mi upstream from Canoe Brook for municipal supply. These figures also include water diverted from the Passaic River by the Bernards Division of the Commonwealth Water Company. Records furnished by Commonwealth Water Company.

01379530 Commonwealth Water Company diverts water from Canoe Brook near Summit, 0.5 mi from mouth, for municipal supply. Records furnished by Commonwealth Water Company.

01380800 Jersey City diverts water from Boonton Reservoir on Rockaway River at Boonton for municipal supply. Records furnished by Jersey City, Bureau of Water.

01382370 City of Newark diverts water from Charlotteburg Reservoir on Pequannock River since May 21, 1961 for municipal supply. Prior to May 21, 1961 water was diverted from reservoir formed by Macopin intake dam on Pequannock River (former diversion 01382490). Records furnished by City of Newark, Division of Water Supply.
REVISED RECORDS.--WDR NJ-82-1: Station number.

01386980 North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir on Wanaque River. Records furnished by North Jersey District Water Supply Commission.

01387020 North Jersey District Water Supply Commission diverts water from Post Brook near Wanaque into Wanaque Reservoir. Records no longer available.

01387990 North Jersey District Water Supply Commission diverts water from Ramapo River by pumping from Pompton Lakes into Wanaque Reservoir. Records furnished by North Jersey District Water Supply Commission.

01388490 Passaic Valley Water Commission supplements the dependable yield of its supply at Little Falls by diverting water at high flows at the Jackson Avenue Pumping Station into Point View Reservoir on Haycock Brook for release as required to sustain minimum flow requirements. Also water may be released into Haycock Brook for maintenance of flow in that stream. These diversions and releases occur upstream of Pompton Plains gaging station. Records furnished by Passaic Valley Water Commission. No diversion or release during the year.
REVISED RECORDS.--WDR NJ-82-1: Station number.

01389490 The Passaic Valley Water Commission diverts water from Passaic River above Beattie's Dam at Little Falls for municipal supply. Records furnished by Passaic Valley Water Commission.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MONTH	COMMONWEALTH WATER COMPANY FROM PASSAIC RIVER 01379510	COMMONWEALTH WATER COMPANY FROM CANOE BROOK 01379530	JERSEY CITY 01380800	NEWARK 01382370	FROM WANAQUE RESERVOIR 01386980	FROM RAMAPO RIVER TO WANAQUE RESERVOIR 01387990	PASSAIC VALLEY WATER COMMISSION 01389490
October......	14.2	8.02	90.4	90.4	143	0	91.7
November.....	46.9	14.5	91.2	73.5	158	0	72.7
December.....	36.7	7.42	91.6	92.8	122	0	69.1
CAL YR 1983..	20.8	5.05	82.4	103	134	0	79.7
January......	12.2	.46	96.6	116	116	199	72.2
February.....	37.4	1.00	93.4	111	117	0	73.8
March........	0	.29	87.9	103	117	0	69.8
April........	6.48	11.7	85.3	111	103	0	71.6
May..........	0	6.04	77.2	105	119	0	77.3
June.........	0	7.32	92.7	113	145	0	80.9
July.........	15.4	6.67	92.1	114	120	0	78.2
August.......	.48	2.14	96.4	110	143	0	75.5
September....	1.22	.74	84.1	116	128	0	80.8
WTR YR 1984..	14.1	5.51	89.8	105	127	16.9	75.7

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ

LOCATION.--Lat 40°40'30", long 74°13'20", Union County, Hydrologic Unit 02030104, on left bank at Ursino Lake Dam in Elizabeth, 75 ft upstream of bridge on Trotters Lane and 3.8 mi upstream from mouth.
DRAINAGE AREA.--16.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.
REVISED RECORDS.--WSP 1552: Drainage area, 1922-23, 1927-29(M), 1932, 1933-34(M), 1938(P), 1942(M) 1944(P), 1945(M), 1948(P), 1952-53(M).
GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1922, nonrecording gage at site 2,800 ft downstream at datum 4.14 ft higher and Oct. 1, 1922 to May 18, 1923, at same site at datum 5.23 ft higher. May 19, 1923 to Dec. 27, 1972, at site 2,800 ft downstream at datum 5.23 ft higher and published as "Elizabeth River at Elizabeth" (station 01393500).
REMARKS.--Water-discharge records fair except those for period of no gage-height record, Nov. 25 to Dec. 19, which are poor. Diversion by pumpage from Hammock Well Field in Union, for municipal supply by Elizabethtown Water Co., probably reduces the flow past the station.
AVERAGE DISCHARGE.--63 years, 26.0 ft^3/s, unadjusted.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,110 ft^3/s Aug. 28, 1971, gage height, 18.7 ft, from floodmark, site and datum then in use, from rating curve extended above 1,100 ft^3/s on basis of contracted-opening measurement of peak flow; no flow many times.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Elevation (ft)	Date	Time	Discharge (ft^3/s)	Elevation (ft)
Oct. 12	1745	1520	21.06	Apr. 5	0515	1500	20.83
Dec. 13	0930	1570	21.20	May 30	0600	2110	22.47
Dec. 14	1000	1770	21.80	July 7	1015	*2140	22.56
Dec. 22	1315	2030	22.46	July 27	1030	1760	21.58
Apr. 4	2230	1530	20.93				

Minimum daily, 4.5 ft^3/s Oct. 10.

REVISIONS.--The maximum discharge for water year 1974 has been revised to 3,200 ft^3/s Aug. 17, 1974, gage height unknown. The mean daily discharge for Aug. 17, 1974 has been revised to 430 ft^3/s, the monthly mean discharge for Aug. 1974 has been revised to 43.4 ft^3/s, the annual mean discharge for water year 1974 has been revised to 31.2 ft^3/s, and the annual mean for calendar year 1974 has been revised to 24.7 ft^3/s. These figures supersede those published in the report for 1974.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.2	13	13	13	19	57	14	46	118	13	7.6
2	141	7.1	12	16	12	15	35	15	37	24	18	6.0
3	24	7.9	25	16	16	13	25	95	38	35	28	42
4	10	8.3	159	16	60	12	269	296	34	18	12	106
5	44	5.8	32	15	47	97	801	32	28	76	42	15
6	11	5.3	70	14	21	41	93	22	24	95	15	10
7	7.0	5.7	28	12	15	20	39	21	19	498	34	9.1
8	5.6	5.9	17	10	27	17	25	40	17	50	16	7.9
9	4.7	6.0	15	11	56	20	34	52	14	24	12	7.2
10	4.5	136	13	22	32	15	28	32	12	19	12	8.2
11	4.6	51	11	18	43	14	25	20	11	102	11	9.0
12	181	12	229	12	27	12	23	27	14	31	40	8.6
13	25	8.0	762	11	16	112	25	28	28	18	12	8.2
14	69	8.0	184	13	17	212	28	31	24	14	12	8.5
15	9.6	150	39	11	334	42	60	23	16	13	12	61
16	6.6	181	26	11	50	29	130	12	13	34	14	8.4
17	6.2	22	20	11	25	21	61	12	16	15	13	7.5
18	6.7	12	17	12	19	16	26	12	31	78	9.3	7.7
19	102	9.4	16	13	18	16	24	21	47	18	8.0	7.4
20	11	8.3	12	11	15	15	22	45	16	14	49	7.2
21	7.9	125	12	9.7	14	45	17	97	14	158	11	7.1
22	6.3	14	507	9.3	14	22	20	22	14	24	9.6	6.3
23	143	11	60	10	25	15	28	21	13	16	48	5.1
24	278	41	27	51	135	13	29	15	92	15	12	6.5
25	26	118	20	43	21	13	16	13	196	13	8.5	7.4
26	13	26	16	23	15	14	17	23	28	13	7.3	7.1
27	9.5	14	14	19	13	12	15	13	17	315	8.2	6.3
28	8.7	75	208	15	162	61	15	68	22	33	9.3	39
29	7.0	44	41	12	35	150	14	365	18	16	9.6	7.7
30	6.1	18	18	13	---	119	14	595	152	15	9.4	5.5
31	6.7	---	14	24	---	118	---	253	---	14	9.7	---
TOTAL	1196.7	1142.9	2637	497.0	1297	1340	2015	2335	1051	1926	524.9	450.5
MEAN	38.6	38.1	85.1	16.0	44.7	43.2	67.2	75.3	35.0	62.1	16.9	15.0
MAX	278	181	762	51	334	212	801	595	196	498	49	106
MIN	4.5	5.3	11	9.3	12	12	14	12	11	13	7.3	5.1

CAL YR 1983 TOTAL 15181.0 MEAN 41.6 MAX 762 MIN 3.6
WTR YR 1984 TOTAL 16413.0 MEAN 44.8 MAX 801 MIN 4.5

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
05...	1300	8.8	530	7.8	19.5	8.6	93	>8.4	>240000	160000
FEB										
22...	1030	14	700	7.9	7.0	11.7	96	2.4	500	200
APR										
02...	1130	31	560	7.9	10.0	12.5	109	2.4	3300	<200
JUN										
14...	1300	25	420	7.3	24.0	4.7	55	13	92000	4900
JUL										
24...	1200	15	670	7.9	23.5	7.0	82	5.4	22000	13000
AUG										
21...	1230	10	510	7.7	23.5	7.6	88	7.2	35000	11000

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	190	59	11	30	2.6	121	57	53	.10
FEB									
22...	220	69	12	45	2.1	139	64	95	<.10
APR									
02...	160	50	7.4	47	2.0	98	48	86	<.10
JUN									
14...	140	43	6.8	27	3.8	78	44	49	.10
JUL									
24...	210	65	11	45	2.4	133	45	88	.10
AUG									
21...	170	52	9.1	28	2.2	108	45	58	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	15	312	.069	2.3	.230	.69	3.0	.060	5.1
FEB									
22...	15	441	.036	2.4	.150	.52	2.9	.100	5.4
APR									
02...	11	349	.023	1.9	.130	.64	2.5	.070	5.3
JUN									
14...	10	302	.248	1.3	.190	2.1	3.4	.230	12
JUL									
24...	16	418	.113	1.9	.300	.76	2.7	.150	4.1
AUG									
21...	13	302	.034	1.3	<.050	.62	1.9	.110	5.8

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
05...	1300	<.5	10	4	10	410	4	80	20

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
05...	530	3	70	.1	<100	<1	70	3

01393950 WEST BRANCH RAHWAY RIVER AT WEST ORANGE, NJ

LOCATION.--Lat 40°47'01", long 74°16'27", Essex County, Hydrologic Unit 02030104, at bridge on Mountain Avenue, 300 ft downstream of Turtle Brook, and 400 ft southeast of intersection with Pleasant Valley Way in West Orange.

DRAINAGE AREA.--2.52 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1982 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT									
12...	1045	700	7.6	15.0	5.7	56	5.7	>24000	>24000
FEB									
21...	1350	760	7.7	7.5	12.9	108	--	800	400
APR									
02...	1330	625	7.8	9.0	12.8	110	4.5	5400	330
JUN									
14...	1030	680	7.3	19.5	6.5	71	5.1	9200	2400
JUL									
25...	0930	538	7.7	18.0	8.2	86	3.9	4900	4900
AUG									
23...	1045	285	7.2	20.0	8.5	94	13	24000	54000

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
12...	240	60	23	44	2.2	83	32	160	<.10
FEB									
21...	170	41	16	73	1.5	49	32	180	<.10
APR									
02...	97	25	8.5	71	1.4	31	22	150	<.10
JUN									
14...	200	49	18	44	1.9	69	33	140	.10
JUL									
25...	170	43	16	35	1.4	72	32	110	<.10
AUG									
23...	81	20	7.5	18	1.4	51	19	52	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
12...	13	463	.019	.47	<.050	.71	1.2	.120	4.6
FEB									
21...	15	475	.015	1.4	.460	.73	2.2	.090	2.8
APR									
02...	9.1	344	.012	.92	.110	1.0	1.9	.120	4.1
JUN									
14...	17	481	.077	1.3	.320	.98	2.3	.080	5.9
JUL									
25...	19	356	.018	1.2	.100	.36	1.6	.080	2.6
AUG									
23...	7.0	197	.031	.92	.400	.87	1.8	.200	6.6

01393950 WEST BRANCH RAHWAY RIVER AT WEST ORANGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
12...	1045	750	<.1	3.4	<10	2	<1	<10	120	4	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
12...	20	20	10	<10	10	390	10000	6	30	50	170

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	<.1	.02	3	<10	<1	<1	30	70	4	32	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	<.1	32	13	2.2	3.5	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ

LOCATION.--Lat 40°41'11", long 74°18'44", Union County, Hydrologic Unit 02030104, on left bank 50 ft downstream from bridge on eastbound U.S. Highway 22, 100 ft downstream from Pope Brook, and 1.5 mi south of Springfield.

DRAINAGE AREA.--25.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 1622: 1945. WRD-NJ 1973: 1938(M), 1968(M), 1971(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 66.17 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Oct. 1 to Nov. 11 and July 4-9, which are poor. Water for municipal supply diverted from river by city of Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co.

AVERAGE DISCHARGE.--46 years, 28.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s Aug. 2, 1973, gage height, 9.76 ft, from floodmark, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.1 ft³/s Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1215	1530	6.69	May 30	0800	1430	6.49
Dec. 22	1530	1210	6.02	July 7	Unknown	1310	6.24
Apr. 5	0545	*1660	6.95				

Minimum daily discharge, 3.5 ft³/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	5.5	6.9	18	14	31	137	13	116	61	11	7.1
2	110	5.7	4.5	17	12	22	115	13	72	20	17	7.3
3	80	6.0	8.8	16	17	17	93	29	49	42	34	47
4	20	5.6	232	16	134	15	242	338	40	14	12	122
5	35	5.1	46	15	64	74	1300	60	32	35	29	7.9
6	33	4.8	73	15	38	92	285	30	26	110	12	5.1
7	18	4.7	78	13	25	35	94	23	22	505	13	4.3
8	9.6	4.6	14	12	18	24	61	73	19	130	13	4.2
9	6.0	4.5	8.3	11	16	28	43	78	17	17	8.9	4.1
10	5.6	81	5.6	16	15	20	38	29	15	18	8.8	4.7
11	20	23	4.3	23	25	20	33	20	14	91	8.9	5.7
12	80	4.5	323	13	34	17	27	32	13	54	25	4.8
13	45	4.6	1060	12	24	97	22	32	35	17	11	6.3
14	45	4.9	757	13	23	250	31	38	19	13	8.8	7.5
15	17	63	88	12	421	87	101	18	12	13	8.5	18
16	8.0	192	45	11	141	71	212	15	11	38	12	4.7
17	7.6	12	32	11	58	60	62	14	13	13	10	4.2
18	22	4.3	25	11	42	40	40	13	30	122	7.9	4.5
19	70	4.5	22	12	35	32	31	16	25	23	7.9	4.9
20	43	4.6	18	10	31	26	27	66	12	13	41	4.5
21	12	94	15	9.1	24	83	23	113	11	264	8.1	4.2
22	8.5	8.2	552	8.8	20	49	18	22	10	61	7.8	4.0
23	38	4.1	127	9.4	21	28	45	24	9.8	21	50	4.1
24	170	18	46	35	159	21	40	28	53	17	8.1	5.5
25	86	168	31	53	42	19	25	13	208	13	7.0	5.9
26	25	27	23	33	29	17	21	25	18	12	6.8	6.2
27	8.0	8.5	20	27	20	15	16	19	12	230	6.9	6.6
28	5.8	37	189	22	158	60	15	55	10	32	7.2	30
29	5.2	121	104	17	67	154	14	443	12	15	7.6	3.9
30	5.1	14	30	15	---	135	13	1010	44	13	7.4	3.5
31	5.2	---	21	21	---	156	---	424	---	12	7.6	---
TOTAL	1088.6	944.7	4009.4	527.3	1727	1795	3224	3126	979.8	2039	424.2	352.7
MEAN	35.1	31.5	129	17.0	59.6	57.9	107	101	32.7	65.8	13.7	11.8
MAX	170	192	1060	53	421	250	1300	1010	208	505	50	122
MIN	5.1	4.1	4.3	8.8	12	15	13	13	9.8	12	6.8	3.5

CAL YR 1983 TOTAL 18116.3 MEAN 49.6 MAX 1060 MIN 4.1
WTR YR 1984 TOTAL 20237.7 MEAN 55.3 MAX 1300 MIN 3.5

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
12...	1330	5.0	425	7.7	16.0	7.3	73	5.6	2800	1700
FEB										
22...	1215	20	520	8.1	5.5	14.5	114	1.1	700	200
APR										
12...	1400	27	490	8.6	14.0	14.0	135	2.7	20	>20
JUN										
14...	1230	13	395	7.1	22.5	1.8	21	12	24000	16000
JUL										
24...	1030	17	440	7.7	22.5	6.6	76	4.2	1100	790
AUG										
21...	1100	8.2	332	7.4	18.5	6.2	65	4.8	>24000	5400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
12...	150	48	8.1	29	1.8	95	38	54	.10
FEB									
22...	140	41	9.2	40	1.7	79	35	87	<.10
APR									
12...	130	40	8.5	34	1.7	74	38	83	<.10
JUN									
14...	130	40	7.4	23	3.5	75	33	49	.10
JUL									
24...	150	45	8.9	25	1.9	93	30	55	<.10
AUG									
21...	120	36	6.6	16	2.3	82	25	33	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
12...	12	276	.052	1.9	.090	.96	2.9	.130	11
FEB									
22...	13	321	.010	1.4	.050	.33	1.7	.060	3.4
APR									
12...	12	321	.018	1.3	.080	.18	1.5	.050	1.8
JUN									
14...	12	279	.151	1.2	.170	1.7	2.9	.250	7.3
JUL									
24...	15	290	.024	1.2	.060	.40	1.6	.090	3.4
AUG									
21...	11	204	.028	1.6	.150	.62	2.2	.110	4.6

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN									
14...	1230	<.5	90	9	<10	70	4	20	22

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
14...	510	12	510	<.1	6	<1	50	7

01395000 RAHWAY RIVER AT RAHWAY, NJ

LOCATION.--Lat 40°37'05", long 74°17'00", Union County, Hydrologic Unit 02030104, on left bank 100 ft upstream from St. Georges Avenue bridge in Rahway and 0.9 mi upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1908 to April 1915 (gage heights and discharge measurements only), October 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1930-31(M), 1937. WDR NJ-79-1: 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.77 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 25, 1934, nonrecording gage at site 40 ft downstream from Church Street and 1,500 ft downstream from present site at datum 2.77 ft lower.

REMARKS.--Water-discharge records fair. Water for municipal supply diverted from river by Rahway and Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co and by storage in the Lenapi Park flood control reservoir.

AVERAGE DISCHARGE.--63 years (water years 1922-84), 47.5 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,420 ft³/s Aug. 2, 1973, gage height, 7.88 ft, from rating curve extended above 3,000 ft³/s; no flow part or all of some days in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 24	0845	782	3.50	Feb. 15	1315	845	3.60
Nov. 16	0300	697	3.36	Mar. 14	0230	739	3.43
Dec. 4	1415	680	3.33	Apr. 5	Unknown	2260	5.66
Dec. 14	0230	*2880	6.43	May 4	1530	657	3.29
Dec. 22	1415	1540	4.67	July 7	1145	1580	4.73
Dec. 28	2045	603	3.18	July 27	1215	674	3.32

Minimum daily discharge, 0.77 ft³/s, Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	5.2	27	26	23	48	221	22	249	19	23	7.2
2	60	5.8	20	24	16	33	186	22	94	14	22	5.4
3	50	.77	29	23	20	27	151	29	67	21	77	12
4	4.9	5.8	330	22	204	23	190	506	50	27	22	228
5	5.7	4.8	254	21	107	81	1610	136	40	28	58	18
6	41	3.5	93	21	82	196	1230	46	32	217	47	11
7	5.8	2.3	205	20	41	55	141	34	30	859	22	6.9
8	2.4	2.8	43	18	26	35	93	80	26	390	25	6.2
9	2.5	3.3	28	16	23	36	62	133	24	48	16	5.6
10	1.5	71	22	20	21	29	54	45	21	32	13	5.6
11	1.5	165	18	43	25	26	50	32	21	112	14	8.1
12	124	24	318	23	56	22	43	36	19	189	30	7.5
13	133	9.2	1650	18	36	71	39	58	18	33	27	6.3
14	87	6.9	1960	17	31	564	61	53	42	24	14	7.6
15	11	47	459	18	540	210	161	29	21	21	13	40
16	5.4	492	82	16	399	92	361	23	17	57	12	12
17	3.6	55	53	14	81	89	130	21	16	28	38	4.6
18	4.2	24	39	15	55	56	63	19	40	151	14	5.8
19	131	14	33	16	42	44	48	22	87	57	13	6.2
20	16	11	27	15	37	38	41	42	23	23	39	6.2
21	6.3	188	21	14	29	90	37	240	18	217	21	5.9
22	5.6	37	683	13	26	112	32	35	15	201	12	5.7
23	62	18	637	13	25	44	59	30	15	33	65	4.5
24	592	29	82	48	248	32	77	44	20	30	26	3.8
25	107	290	61	107	56	29	40	22	366	26	11	5.6
26	18	121	61	63	37	28	32	20	42	17	8.4	5.0
27	10	31	47	45	26	25	27	41	22	328	7.1	4.6
28	8.8	47	188	38	232	72	25	50	36	95	8.3	41
29	.95	259	353	24	168	309	24	363	27	19	8.4	12
30	8.8	46	56	21	---	217	22	359	26	27	8.7	4.6
31	5.0	---	30	31	---	253	---	421	---	25	8.5	---
TOTAL	1531.95	2019.37	7909	823	2712	2986	5310	3013	1524	3368	723.4	502.9
MEAN	49.4	67.3	255	26.5	93.5	96.3	177	97.2	50.8	109	23.3	16.8
MAX	592	492	1960	107	540	564	1610	506	366	859	77	228
MIN	.95	.77	18	13	16	22	22	19	15	14	7.1	3.8

CAL YR 1983 TOTAL 30716.42 MEAN 84.2 MAX 1960 MIN .00
WTR YR 1984 TOTAL 32422.62 MEAN 88.6 MAX 1960 MIN .77

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1952, 1962, 1967-70, and February 1979 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 05...	1030	3.9	205	7.4	19.0	7.6	82	2.1	1100	3500
FEB 22...	1325	24	470	8.0	6.5	13.1	106	1.2	<200	<200
MAR 26...	1100	29	540	8.4	7.5	13.3	111	6.0	230	<20
JUN 14...	1430	33	470	8.0	25.5	8.5	103	5.4	3500	2400
JUL 24...	1400	30	278	8.0	24.0	8.2	97	4.5	310	1100
AUG 23...	1300	50	405	7.8	22.0	8.6	98	7.8	2300	1700

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	75	23	4.2	11	1.7	51	20	19	.10
FEB 22...	130	38	8.0	35	1.7	77	36	74	<.10
MAR 26...	140	40	8.6	50	1.5	79	39	96	<.10
JUN 14...	170	52	9.8	25	2.1	107	43	54	.10
JUL 24...	92	28	5.4	16	1.7	62	23	29	<.10
AUG 23...	140	43	7.9	19	1.8	95	31	43	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	6.5	116	.013	.61	<.050	.58	1.2	.110	3.8
FEB 22...	12	287	.013	1.2	.490	E.56	--	.060	3.5
MAR 26...	10	316	.015	.84	.060	.65	1.5	.060	2.7
JUN 14...	13	308	.038	1.1	.170	1.0	2.1	.110	3.6
JUL 24...	10	186	.028	.68	.090	.64	1.3	.110	5.2
AUG 23...	9.9	256	.020	.90	.090	.63	1.5	.100	3.4

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
05...	1030	<.5	<10	5	<10	140	10	10	10
JUN									
14...	1430	<.5	50	3	<10	70	<1	30	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
05...	580	4	120	<.1	2	<1	20	3
JUN								
14...	580	7	150	<.1	4	<1	30	1

01396001 ROBINSONS BRANCH RAHWAY RIVER AT MAPLE AVENUE, AT RAHWAY, NJ

LOCATION.--Lat 40°36'26", long 74°17'40", Union County, Hydrologic Unit 02030104, on right upstream abutment of bridge on Maple Avenue in Rahway, 2,000 ft downstream from Milton Lake, 1.0 mi downstream from Middlesex Reservoir dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--21.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1939 to current year. Prior to October 1978, published as "Robinsons Branch Rahway River at Rahway, NJ" (sta 01396000).

REVISED RECORDS.--WDR-NJ-75-1: 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 11.3 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Sept. 26, 1978, water-stage recorder above Milton Dam at datum 8.69 ft higher.

REMARKS.--Water-discharge records good except those below 10 ft³/s, which are fair. Water diverted for municipal supply by Middlesex Water Co., from Middlesex Reservoir, capacity, 89,000,000 gal (revised), 1.0 mi above station. No diversion during the year.

AVERAGE DISCHARGE.--45 years, 25.7 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft³/s July 15, 1975, gage height, 5.85 ft, from rating curve extended above 750 ft³/s on basis of flow over dam computation, site and datum then in use; maximum gage height, 6.02 ft Aug. 15, 1969, site and datum then in use; no flow many times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 16	0100	666	3.68	Mar. 14	0145	528	3.26
Dec. 4	1400	563	3.37	Apr. 5	0500	1070	5.11
Dec. 12	1600	662	3.67	May 30	0530	1370	5.97
Dec. 13	1015	1200	5.67	May 31	0645	725	3.85
Dec. 14	0230	*1500	6.90	July 7	1030	1210	5.73
Dec. 22	1315	1210	5.72	July 27	1100	556	3.35
Feb. 15	1115	645	3.62				

Minimum discharge, 2.7 ft³/s Oct. 8, 9, 10, 11, 12, gage height, 0.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	6.2	20	24	19	27	160	15	192	64	9.6	4.6
2	9.1	6.5	17	21	15	18	66	12	41	25	9.0	4.0
3	7.6	9.7	24	20	16	16	38	19	24	30	16	11
4	4.1	15	231	13	121	15	89	224	20	15	8.3	55
5	5.3	9.3	162	13	74	49	816	64	16	16	26	11
6	9.5	8.2	73	14	59	107	319	24	17	83	23	5.4
7	4.4	7.8	110	14	31	35	76	18	24	456	10	5.5
8	3.2	7.3	32	12	20	21	33	36	14	219	6.7	5.7
9	3.0	5.3	22	11	15	20	27	62	13	38	5.6	5.6
10	2.9	77	20	13	13	18	24	23	11	15	6.1	4.7
11	2.8	137	17	23	16	18	21	18	11	71	5.9	4.5
12	69	23	254	17	26	18	18	33	9.3	94	11	4.3
13	34	9.1	871	14	22	62	17	47	9.3	18	11	3.9
14	36	7.1	873	11	21	367	21	32	12	13	6.5	4.0
15	7.3	53	312	9.5	297	161	89	18	9.2	11	5.8	34
16	4.3	310	78	8.3	177	65	248	15	7.3	30	8.0	9.2
17	4.5	71	28	6.8	45	42	114	13	9.4	16	17	4.1
18	4.7	14	21	7.7	30	30	37	13	23	62	4.9	3.5
19	58	9.8	19	8.8	24	26	27	18	105	29	4.4	3.5
20	13	8.7	16	9.6	22	22	23	32	20	13	6.0	3.7
21	7.0	103	15	8.8	20	39	21	115	11	81	4.5	3.7
22	5.9	26	451	7.7	15	41	17	24	9.3	42	4.2	3.5
23	55	14	286	8.0	16	24	31	21	8.8	15	22	3.4
24	277	22	62	13	116	18	41	25	19	12	17	3.2
25	69	160	37	57	36	17	26	13	91	10	5.6	3.2
26	12	84	33	46	21	17	22	15	15	8.9	4.5	3.9
27	8.8	24	30	38	17	15	20	19	10	207	4.3	3.5
28	7.1	36	64	33	137	42	16	25	29	93	4.8	16
29	8.3	121	165	20	103	257	15	262	64	18	4.7	6.7
30	5.6	34	40	17	---	266	15	773	115	12	4.7	4.0
31	6.3	---	27	21	---	221	---	517	---	11	5.6	---
TOTAL	753.7	1419.0	4410	540.2	1544	2094	2487	2545	959.6	1827.9	282.7	238.3
MEAN	24.3	47.3	142	17.4	53.2	67.5	82.9	82.1	32.0	59.0	9.12	7.94
MAX	277	310	873	57	297	367	816	773	192	456	26	55
MIN	2.8	5.3	15	6.8	13	15	15	12	7.3	8.9	4.2	3.2

CAL YR 1983 TOTAL 17763.70 MEAN 48.7 MAX 873 MIN .00
WTR YR 1984 TOTAL 19101.4 MEAN 52.2 MAX 873 MIN 2.8

01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ

LOCATION.--Lat 40°45'40", long 74°49'18", Morris County, Hydrologic Unit 02030105, at bridge on Middle Valley Road in Middle Valley, 6.9 mi downstream from Drakes Brook.

DRAINAGE AREA.--47.6 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN										
26...	1315	90	397	7.7	1.5	14.3	--	2.7	--	--
MAR										
15...	1245	195	209	7.6	3.5	13.3	--	E2.0	<20	4
MAY										
21...	1030	160	152	7.8	14.0	10.2	101	E2.0	1100	--
JUL										
12...	1200	252	163	7.7	19.5	8.5	95	E2.0	5400	>2400
AUG										
06...	1200	83	194	8.2	19.0	10.1	111	E1.6	1100	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
26...	65	15	6.6	46	1.8	39	15	84	<.10
MAR									
15...	48	11	4.9	19	1.0	29	11	34	<.10
MAY									
21...	51	12	5.1	7.6	1.1	35	14	13	<.10
JUL									
12...	51	12	5.0	7.5	1.2	36	10	13	<.10
AUG									
06...	380	70	50	74	4.4	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
26...	9.5	209	.030	1.5	.090	.40	1.9	.090	3.7
MAR									
15...	9.1	123	.009	1.0	.280	.29	1.3	.060	2.5
MAY									
21...	9.2	106	.015	.89	.290	.57	1.5	.080	3.9
JUL									
12...	10	107	.014	.90	.140	.54	1.4	.130	4.1
AUG									
06...	7.6	--	.021	1.5	<.050	.44	1.9	.100	3.1

01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, NJ

LOCATION.--Lat 40°40'40", long 74°52'46", Hunterdon County, Hydrologic Unit 02030105, on left bank 1.0 mi northeast of High Bridge, and 4.4 mi upstream from Spruce Run.

DRAINAGE AREA.--65.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 601: 1924. WSP 781: Drainage area. WSP 1552: 1(M), 1920(M), 1921, 1923, 1924(M), 1927-28(M), 1934(M), 1941(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 28, 1930. Datum of gage is 282.10 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Sept. 30, 1921, reference point at same site and datum.

REMARKS.--Water-discharge records good except those below 30 ft^3/s, which are fair.

AVERAGE DISCHARGE.--66 years, 123 ft^3/s, 25.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,910 ft^3/s Jan. 25, 1979, gage height, 12.07 ft; maximum gage height, 12.23 ft Feb. 24, 1979 (ice jam); minimum discharge, 6.6 ft^3/s Oct. 11, 1930; minimum daily 13 ft^3/s Aug. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred on Feb. 6, 1896, in February 1902, and October 1903. At High Bridge, according to reports of the New Jersey State Geologist, the discharges for these floods respectively were 7,560 ft^3/s, 3,840 ft^3/s and 2,670 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	2200	1580	9.08	May 4	1315	1410	8.91
Dec. 22	2100	1100	8.56	May 30	0400	2340	9.71
Dec. 28	2300	1370	8.87	July 6	0745	1290	8.78
Feb. 15	1730	1280	8.77	July 7	1200	2940	10.13
Apr. 5	1430	*4510	11.02				

Minimum discharge, 30 ft^3/s Oct. 9, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	51	151	191	91	197	317	167	475	373	103	68
2	45	50	128	170	88	174	350	156	381	238	99	61
3	45	49	123	163	98	162	360	156	331	149	101	61
4	37	49	285	158	361	152	383	883	297	118	96	186
5	35	46	253	154	213	164	2980	316	257	161	122	115
6	44	45	197	150	153	268	1340	230	233	814	114	76
7	37	44	317	144	131	191	718	211	216	1880	95	68
8	33	45	180	129	105	157	532	275	199	456	93	64
9	31	45	149	121	105	153	442	349	185	292	84	62
10	30	54	142	119	102	144	383	219	166	246	86	62
11	31	141	131	123	152	143	338	202	147	264	86	73
12	47	126	238	102	242	132	302	201	136	399	84	64
13	61	72	1070	107	200	146	272	220	134	223	103	59
14	53	62	880	113	212	675	250	205	131	186	85	58
15	44	82	377	109	880	352	348	174	120	167	79	58
16	37	282	297	98	421	339	615	163	112	192	74	60
17	35	131	251	105	260	324	380	155	113	169	97	55
18	35	87	219	103	228	261	318	149	147	230	77	54
19	99	74	203	102	214	243	361	154	149	195	74	52
20	69	69	172	91	210	219	337	186	113	147	94	52
21	47	257	147	88	194	245	260	308	101	207	82	50
22	41	132	555	85	171	293	229	185	96	195	72	48
23	64	94	429	85	162	215	242	172	92	146	91	48
24	490	97	243	250	421	202	255	206	130	131	87	49
25	144	405	180	292	237	194	216	152	406	118	71	49
26	87	240	175	173	206	183	206	150	155	108	67	48
27	70	195	191	146	178	168	201	182	112	260	65	46
28	62	181	410	141	279	213	190	159	101	185	64	50
29	58	436	688	110	287	263	183	925	95	133	63	53
30	54	206	240	103	---	233	173	1730	133	118	64	50
31	52	---	203	105	---	248	---	760	---	110	73	---
TOTAL	2058	3847	9224	4130	6601	7053	13481	9700	5463	8610	2645	1899
MEAN	66.4	128	298	133	228	228	449	313	182	278	85.3	63.3
MAX	490	436	1070	292	880	675	2980	1730	475	1880	122	186
MIN	30	44	123	85	88	132	173	149	92	108	63	46
CFSM	1.02	1.96	4.56	2.04	3.49	3.49	6.88	4.79	2.79	4.26	1.31	.97
IN.	1.17	2.19	5.25	2.35	3.76	4.02	7.68	5.53	3.11	4.90	1.51	1.08

CAL YR 1983 TOTAL 69297 MEAN 190 MAX 2380 MIN 30 CFSM 2.91 IN. 39.48
WTR YR 1984 TOTAL 74711 MEAN 204 MAX 2980 MIN 30 CFSM 3.12 IN. 42.56

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET AT HIGH BRIDGE, NJ

LOCATION.--Lat 40°39'49", long 74°53'52", Hunterdon County, Hydrologic Unit 02030105, at bridge on Arch Street in High Bridge, 0.9 mi northeast of Mariannes Corner, 1.0 mi downstream from Lake Solitude dam, and 4.3 mi northeast of Norton.

DRAINAGE AREA.--68.8 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN										
26...	1145	143	388	7.7	.0	14.4	--	3.7	130	540
MAR										
15...	1045	416	206	7.6	1.5	14.0	--	E1.5	110	220
MAY										
21...	1200	389	154	7.9	15.0	10.0	100	E2.2	1100	--
JUL										
12...	1330	320	149	7.9	20.0	8.8	98	E2.0	16000	>2400
AUG										
06...	1330	60	205	8.4	20.5	9.8	110	E1.3	1700	1600

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN									
26...	65	15	6.7	47	2.1	38	16	85	<.10
MAR									
15...	46	11	4.6	20	1.1	27	11	36	<.10
MAY									
21...	52	12	5.3	7.0	1.2	36	18	12	.20
JUL									
12...	47	11	4.8	6.0	1.3	33	12	10	<.10
AUG									
06...	77	19	7.2	10	1.7	59	21	15	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
26...	9.5	214	.028	1.4	.250	.74	2.1	.140	3.4
MAR									
15...	8.5	118	.009	.88	.090	.32	1.2	.060	2.7
MAY									
21...	9.2	114	.015	.89	.060	.84	1.7	.080	3.6
JUL									
12...	10	97	.018	.88	.100	.56	1.4	.170	4.8
AUG									
06...	9.7	143	.013	1.4	.330	.42	1.8	.080	2.3

01396580 SPRUCE RUN AT GLEN GARDNER, NJ

LOCATION.--Lat 40°41'29", long 74°56'15", Hunterdon County, Hydrologic Unit 02030105, on right downstream wingwall of bridge on Sanatorium Road in Glen Gardner, 0.8 mi downstream from Alpaugh Brook, and 2.0 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--12.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 389.10 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Oct. 1 to 24, Dec. 25 to 28, Jan. 1 to 4, and Jan 13 to Feb. 24, which are poor.

AVERAGE DISCHARGE.--6 years, 22.0 ft³/s, 24.3 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft Jan. 24, 1979, gage height, 7.60 ft, from high-water mark, from rating curve extended above 700 ft³/s on basis of slope-conveyance computaticn; minimum, 1.1 ft³/s Oct. 1, 1982, minimum gage height, 1.76 ft Sept. 8, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 24	0600	549	4.12	May 29	1530	1360	5.67
Dec. 28	1915	628	4.23	July 5	2230	1140	4.98
Apr. 5	0500	1050	4.76	July 7	0200	*1680	6.92
May 4	0415	773	4.43				

Minimum daily discharge, 3.2 ft³/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.4	18	26	12	30	68	22	72	101	8.2	4.6
2	3.8	4.4	16	23	11	27	78	20	58	34	7.9	4.4
3	3.5	4.5	16	21	30	25	80	22	50	18	7.8	4.8
4	3.3	4.5	74	17	84	23	97	213	44	14	7.7	16
5	3.8	4.4	35	17	38	30	503	49	37	114	9.6	6.4
6	4.2	4.3	33	16	25	53	130	38	32	121	8.3	4.9
7	3.7	4.3	44	16	22	35	90	33	29	481	7.6	4.6
8	3.3	4.3	23	15	18	27	70	58	25	61	7.5	4.4
9	3.3	4.2	19	16	20	27	59	56	22	41	6.3	4.4
10	3.2	6.7	18	12	37	47	52	35	19	33	7.1	4.4
11	3.9	22	16	12	19	30	46	30	17	42	6.8	4.7
12	9.0	11	77	13	37	36	42	35	15	41	6.8	4.4
13	12	7.1	268	14	28	27	39	40	15	23	7.3	4.2
14	9.0	5.9	103	15	50	132	36	33	16	19	6.0	4.2
15	6.6	13	51	14	150	66	46	27	13	16	5.7	4.4
16	5.0	59	38	13	90	69	102	23	12	27	5.4	4.5
17	4.0	14	31	12	56	57	49	21	13	18	5.2	4.2
18	3.3	9.3	27	13	43	47	52	20	23	45	5.0	4.1
19	17	8.0	24	13	35	43	75	24	19	21	5.0	4.2
20	30	7.3	21	12	31	38	51	57	12	14	5.3	4.1
21	8.2	57	21	12	28	46	40	73	10	22	4.7	4.5
22	3.8	15	118	17	26	43	35	31	9.5	18	4.6	5.0
23	40	10	44	17	40	34	41	37	8.9	13	7.5	5.2
24	242	13	29	12	74	30	40	36	59	11	5.6	5.6
25	13	85	29	40	40	29	33	24	71	9.6	4.9	5.5
26	8.3	31	25	28	32	28	29	34	18	8.8	4.6	6.5
27	6.8	24	23	22	28	26	26	39	12	40	4.5	6.7
28	5.9	35	157	18	67	48	24	36	10	17	4.5	11
29	5.2	73	66	16	47	50	24	364	9.7	11	4.6	10
30	4.7	24	31	14	---	41	23	261	18	9.7	4.8	8.0
31	4.5	---	31	13	---	49	---	110	---	9.0	5.8	---
TOTAL	478.6	569.6	1526	519	1218	1293	2080	1901	769.1	1453.1	192.6	169.9
MEAN	15.4	19.0	49.2	16.7	42.0	41.7	69.3	61.3	25.6	46.9	6.21	5.66
MAX	242	85	268	40	150	132	503	364	72	481	9.6	16
MIN	3.2	4.2	16	12	11	23	23	20	8.9	8.8	4.5	4.1
CFSM	1.25	1.54	4.00	1.36	3.41	3.39	5.63	4.98	2.08	3.81	.50	.46
IN.	1.45	1.72	4.62	1.57	3.68	3.91	6.29	5.75	2.33	4.39	.58	.51

CAL YR 1983 TOTAL 8975.4 MEAN 24.6 MAX 550 MIN 2.8 CFSM 2.00 IN. 27.15
WTR YR 1984 TOTAL 12169.9 MEAN 33.3 MAX 503 MIN 3.2 CFSM 2.71 IN. 36.81

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

LOCATION.--Lat 40°40'41", long 74°55'06", Hunterdon County, Hydrologic Unit 02030105, at site 800 ft downstream of Rocky Run, 0.3 mi above Van Syckel Road bridge, 1.5 mi northwest of High Bridge, and 1.6 mi southeast of Glen Gardner.

DRAINAGE AREA.--15.5 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 26...	0940	E35	185	7.6	.5	12.4	--	<1.2	20	540
MAR 20...	1145	E46	155	7.1	7.0	13.4	--	E2.0	<20	2
MAY 17...	0950	E28	144	7.4	9.5	12.0	--	E2.0	40	33
JUL 12...	0945	E53	132	7.1	18.5	9.8	--	3.1	130	920
AUG 08...	0940	E11	158	7.5	19.5	9.5	104	E2.1	330	1600
SEP 24...	1000	E8.1	268	6.5	17.0	11.2	115	<1.0	310	920

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 26...	43	10	4.4	13	1.6	22	19	23	<.10
MAR 20...	42	10	4.1	9.1	1.1	18	20	18	<.10
MAY 17...	42	10	4.2	7.2	1.0	23	19	11	.10
JUL 12...	41	10	4.0	6.7	1.2	24	18	9.8	.10
AUG 08...	53	13	5.0	7.7	1.2	34	18	11	.10
SEP 24...	58	14	5.5	9.2	1.3	37	22	12	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 26...	13	112	.015	1.3	.090	.29	1.6	.070	2.8
MAR 20...	13	93	.008	1.1	<.050	.22	1.3	.050	1.3
MAY 17...	13	101	.008	.84	<.050	.28	1.1	.050	1.3
JUL 12...	14	99	.006	.92	.240	.49	1.4	.060	2.8
AUG 08...	15	109	.012	1.0	<.050	.31	1.3	.050	1.7
SEP 24...	17	109	.010	1.2	.080	.13	1.3	.090	1.2

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
SEP											
24...	1000	<.5	.2	<10	<1	<1	<10	<20	1	<1	<10

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
SEP											
24...	5	<10	2	0	280	5000	1	10	60	260	.1

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
24...	<.01	1	<10	<1	<1	<10	40	3	<1	<1.0	<.1

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
SEP											
24...	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP										
24...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ

LOCATION.--Lat 40°38'51", long 74°58'09", Hunterdon County, Hydrologic Unit 02030105, on left bank downstream side of bridge on Jutland Road, 0.2 mi south of Van Syckel, 0.8 mi north of Perryville, and 0.3 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--11.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1973-77. July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 280 ft, from topographic map.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, Apr. 4-10, which are fair.

AVERAGE DISCHARGE.--7 years, 22.3 ft³/s, 25.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s Jan. 24, 1979, gage height, 6.48 ft, from rating curve extended above 200 ft³/s; minimum, 1.1 ft³/s Sept. 23, 1980, gage height, 0.66 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 12	2330	400	3.03
Dec. 13	1745	852	4.11
Dec. 22	1245	471	3.24
Dec. 28	1915	447	3.17
Mar. 14	0100	393	3.01
Apr. 5	---	1300	4.90
May 4	0415	770	3.94
May 20	2345	367	2.93
May 29	1545	1480	5.16
May 30	0400	652	3.69
June 24	2300	489	3.29
July 1	1015	604	3.58
July 5	2230	1110	4.60
July 7	0245	*2220	6.10

Minimum discharge, 2.6 ft³/s Oct. 5, 7, 8, 9, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.8	19	18	11	24	86	23	67	129	14	7.6
2	3.7	4.8	17	18	11	22	103	22	52	35	13	7.2
3	3.1	5.1	17	14	17	20	95	30	46	23	13	7.4
4	2.8	5.3	91	13	84	19	150	215	40	20	13	14
5	4.7	4.9	32	13	30	30	700	46	35	112	39	8.7
6	4.1	4.8	39	13	23	50	500	36	32	115	17	7.4
7	2.8	4.8	39	12	17	30	200	32	29	541	24	6.7
8	2.7	4.5	21	12	13	23	110	57	26	75	19	6.5
9	2.7	4.5	18	12	13	23	66	47	24	51	14	6.3
10	2.7	17	18	15	14	20	43	32	23	43	14	6.8
11	2.7	22	16	14	35	21	43	29	21	43	13	7.1
12	14	11	96	12	41	18	40	30	20	36	13	6.4
13	7.4	7.6	330	13	27	32	37	27	19	29	13	5.7
14	7.2	6.6	96	14	46	153	35	28	21	25	12	5.9
15	4.0	27	45	13	176	65	40	25	18	23	11	6.6
16	3.5	63	35	11	61	59	103	23	16	25	10	6.4
17	3.4	16	28	12	38	46	46	22	19	21	9.5	5.8
18	3.5	11	25	12	34	38	42	21	25	36	9.2	5.3
19	22	9.7	23	12	29	35	46	23	35	23	9.5	5.2
20	6.9	8.9	19	11	28	32	38	72	17	19	11	5.0
21	4.7	53	17	11	25	42	32	71	15	28	8.7	4.8
22	4.1	16	130	21	22	36	30	29	14	21	8.5	4.6
23	24	12	40	10	22	31	40	38	13	18	13	4.6
24	94	17	25	17	87	27	38	31	58	16	9.7	4.5
25	14	97	20	33	34	26	31	23	60	14	8.4	4.5
26	8.9	31	18	28	26	25	28	33	18	14	7.9	4.5
27	6.8	22	15	28	24	24	26	29	15	48	7.7	4.2
28	6.0	50	105	20	52	49	25	37	13	20	7.7	7.2
29	5.3	75	51	15	36	60	26	312	13	16	7.8	5.2
30	5.0	24	24	14	---	58	25	288	26	15	8.2	4.4
31	4.9	---	18	14	---	81	---	105	---	14	12	---
TOTAL	285.3	640.3	1487	475	1076	1219	2824	1836	830	1648	390.8	186.5
MEAN	9.20	21.3	48.0	15.3	37.1	39.3	94.1	59.2	27.7	53.2	12.6	6.22
MAX	94	97	330	33	176	153	700	312	67	541	39	14
MIN	2.7	4.5	15	10	11	18	25	21	13	14	7.7	4.2
CFSM	.78	1.81	4.07	1.30	3.14	3.33	7.97	5.02	2.35	4.51	1.07	.53
IN.	.90	2.02	4.69	1.50	3.39	3.84	8.90	5.79	2.62	5.20	1.23	.59

CAL YR 1983 TOTAL 9813.0 MEAN 26.9 MAX 528 MIN 2.1 CFSM 2.28 IN. 30.94
WTR YR 1984 TOTAL 12897.9 MEAN 35.2 MAX 700 MIN 2.7 CFSM 2.98 IN. 40.66

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 26...	1040	21	215	7.7	1.5	12.8	--	<1.0	40	920
MAR 20...	1040	32	150	6.8	7.0	14.2	--	E1.4	<20	4
MAY 17...	1110	22	148	7.9	11.0	11.2	--	E1.7	170	79
JUL 12...	1040	38	148	7.3	18.5	9.9	--	E1.3	330	540
AUG 08...	1045	19	162	7.5	20.5	9.4	105	E1.9	330	>2400
SEP 24...	1130	4.8	198	6.4	17.0	11.2	115	<1.1	110	920

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 26...	54	14	4.7	17	1.4	33	19	30	<.10
MAR 20...	50	13	4.2	6.6	1.0	31	18	10	<.10
MAY 17...	54	14	4.6	5.7	.90	35	17	8.0	.10
JUL 12...	50	13	4.3	5.3	1.3	35	19	7.4	<.10
AUG 08...	61	16	5.0	6.4	1.5	47	16	8.1	.10
SEP 24...	80	20	7.2	6.4	1.2	64	18	8.2	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 26...	11	127	.017	1.1	<.050	.20	1.3	.040	2.6
MAR 20...	11	89	.005	.89	<.050	.19	1.1	.020	2.2
MAY 17...	12	108	.003	.76	.300	.26	1.0	.030	1.3
JUL 12...	13	108	.004	.86	.140	.28	1.1	.050	2.2
AUG 08...	14	118	.011	.83	.130	.48	1.3	.050	2.0
SEP 24...	15	131	.005	1.2	.130	E.10	--	.020	.80

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
17...	1110	<.5	10	<1	<10	<20	<1	20	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
17...	200	2	20	<.1	1	<1	10	<1

01396800 SPRUCE RUN AT CLINTON, NJ

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, Hydrologic Unit 02030105, 1,800 ft downstream from dam at Spruce Run Reservoir, 0.2 mi north of Clinton, 0.3 mi upstream from mouth, and 2.2 mi southwest of High Bridge.

DRAINAGE AREA.--41.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Mar. 15, 1964. Datum of gage is 193.5 ft National Geodetic Vertical Datum of 1929. May to Nov. 24, 1959, nonrecording gage; Nov. 25, 1959 to July 23, 1961, water-stage recorder at site 1,800 ft upstream and at datum 1.41 ft lower; July 24, 1961 to Mar. 14, 1964, water-stage recorder at site 1,500 ft upstream at datum 1.41 ft lower.

REMARKS.--Water-discharge records good. Flow regulated by Spruce Run Reservoir (see Raritan River Basin, reservoirs in).

AVERAGE DISCHARGE.--25 years, 63.7 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,410 ft³/s Apr. 2, 1970, gage height, 5.17 ft; no flow Aug. 22 to Sept. 17, 1963, Sept. 19, 1963 to Mar. 14, 1964, Mar. 19, 1964, result of filling Spruce Run Reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,830 ft³/s July 7, gage height, 4.67 ft; minimum, 1.9 ft³/s Oct. 13, gage height, 1.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	34	4.9	6.0	7.7	11	208	87	341	297	38	61
2	65	45	4.9	6.0	7.9	9.9	253	41	251	219	36	100
3	57	38	5.1	6.0	8.5	10	246	3.7	191	108	34	115
4	97	33	6.2	6.1	9.3	9.7	245	498	180	71	32	40
5	85	37	5.5	6.6	8.5	10	1490	262	150	103	82	8.4
6	72	62	6.1	6.0	8.4	17	665	155	135	572	68	27
7	72	65	7.2	6.6	8.4	81	405	152	120	2060	52	53
8	66	65	8.2	6.6	8.4	96	269	158	105	453	50	33
9	106	62	7.2	6.6	8.4	133	253	216	97	239	32	39
10	126	25	7.5	6.7	8.2	94	224	160	78	185	29	88
11	127	2.7	7.5	6.6	8.2	95	167	101	74	172	27	64
12	47	3.4	9.2	6.6	8.4	96	152	104	56	174	25	71
13	2.7	4.6	11	6.6	8.2	85	144	124	59	128	28	92
14	5.6	5.5	7.9	6.6	8.4	334	142	128	76	102	27	117
15	16	6.2	5.0	6.6	10	253	144	96	52	86	32	99
16	38	6.7	5.7	6.6	9.1	223	136	91	30	95	21	91
17	74	6.0	5.9	7.0	9.0	206	163	62	37	86	22	82
18	50	5.9	5.7	7.2	8.9	166	154	57	81	119	18	95
19	18	6.0	5.6	7.1	8.6	151	198	77	127	120	38	102
20	3.8	5.9	5.6	7.1	8.8	163	188	116	73	75	53	115
21	11	6.6	6.0	7.1	8.6	144	155	373	44	94	32	121
22	17	5.5	8.1	7.4	8.4	138	100	164	59	94	82	140
23	6.5	5.5	6.7	7.1	8.6	165	123	140	87	72	55	138
24	8.0	5.9	6.6	7.7	9.8	123	132	152	55	62	50	143
25	3.9	7.3	6.6	7.7	9.0	110	126	107	267	46	59	140
26	5.5	6.1	6.2	7.6	8.6	121	128	103	108	30	87	124
27	5.3	6.0	6.0	7.6	9.2	134	156	136	55	120	97	143
28	3.9	6.4	8.6	7.5	10	110	155	120	42	106	92	136
29	6.2	6.8	6.8	7.4	10	160	155	935	36	66	79	122
30	16	5.0	6.0	7.9	---	182	95	1470	73	50	66	125
31	31	---	6.0	7.8	---	172	---	585	---	43	47	---
TOTAL	1338.4	580.0	205.5	214.0	253.5	3802.6	7171	6973.7	3139	6247	1490	2824.4
MEAN	43.2	19.3	6.63	6.90	8.74	123	239	225	105	202	48.1	94.1
MAX	127	65	11	7.9	10	334	1490	1470	341	2060	97	143
MIN	2.7	2.7	4.9	6.0	7.7	9.7	95	3.7	30	30	18	8.4

CAL YR 1983 TOTAL 39104.6 MEAN 107 MAX 1990 MIN 1.1
WTR YR 1984 TOTAL 34239.1 MEAN 93.5 MAX 2060 MIN 2.7

01396800 SPRUCE RUN AT CLINTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-62, 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to September 1969, January 1971 to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to April 1961.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 26...	1130	7.7	165	7.4	1.5	12.4	--	E1.4	<20	2
MAR 20...	1000	138	160	6.4	5.0	13.2	--	E1.9	<20	20
MAY 17...	1230	57	146	7.6	12.5	11.2	--	2.8	<20	<2
JUL 12...	1150	178	155	7.6	24.5	8.9	--	E2.4	50	34
AUG 08...	1130	51	128	8.1	27.0	8.6	108	E2.3	20	540
SEP 24...	1330	134	148	7.1	19.5	10.4	113	E1.7	<20	140

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 26...	54	13	5.2	7.1	1.5	36	21	10	<.10
MAR 20...	53	13	4.9	7.8	1.3	31	20	11	<.10
MAY 17...	48	12	4.4	6.6	1.1	29	18	11	<.10
JUL 12...	41	10	3.9	5.1	1.3	29	16	7.6	.10
AUG 08...	45	11	4.3	5.3	1.2	33	16	7.7	.10
SEP 24...	48	12	4.5	6.1	1.3	36	18	9.1	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 26...	7.6	96	.017	.67	<.050	.24	.91	.040	2.8
MAR 20...	7.5	96	.007	.67	<.050	.46	1.1	--	2.6
MAY 17...	4.6	98	.006	.45	<.050	.28	.73	.050	2.1
JUL 12...	6.3	90	.016	.28	.200	.66	.94	.060	3.6
AUG 08...	6.9	91	.012	.12	.050	.48	.60	.040	2.4
SEP 24...	6.3	94	.005	.09	.210	.54	.63	.040	2.6

01396800 SPRUCE RUN AT CLINTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
17...	1230	<.5	10	<1	<10	<20	<1	10	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
17...	390	24	90	<.1	2	<1	460	<1

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ

LOCATION.--Lat 40°34'21", long 74°52'10", Hunterdon County, Hydrologic Unit 02030105, on right bank at downstream side of highway bridge at Stanton Station, 0.4 mi upstream from Prescott Brook, and 1.4 mi west of Stanton.

DRAINAGE AREA.--147 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to December 1906, July 1919 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 561: Drainage area. WSP 1552: 1904, 1922-24(M), 1928-29(M), 1933-35(M).

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1925, nonrecording gage on downstream side of highway bridge at same site and datum.

REMARKS.--Water-discharge records good. Flow regulated by Spruce Run Reservoir since September 1963 (see Raritan River Basin, reservoirs in). Occasional regulation at low flows by ponds above station. Slight diurnal fluctuation caused by small powerplants above station. Water diverted by Hamden Pumping Station, 4.0 mi upstream, into Round Valley Reservoir since February 1966 (see Raritan River Basin, diversions).

AVERAGE DISCHARGE.--68 years (water years 1904-06, 1920-84) 246 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s Aug. 19, 1955, gage height, 15.22 ft, from rating curve extended above 6,400 ft³/s on basis of computation of flow over Clinton Dam, 6.5 mi upstream, at gage height 10.72 ft, contracted-opening measurement 1.7 mi downstream, and slope-area measurement 0.4 mi downstream at gage height 15.22 ft, adjusted to present site; minimum, 9 ft³/s Nov. 7, 1931; minimum daily, 12 ft³/s Oct. 18, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s July 7, gage height, 12.04 ft; minimum, 27 ft³/s Nov. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	96	183	230	100	324	866	318	1230	924	182	129
2	141	106	150	211	96	279	920	272	943	690	174	157
3	105	102	76	186	96	260	887	221	758	337	171	179
4	157	103	394	176	1430	236	907	1580	684	256	162	238
5	140	88	420	170	237	258	5150	799	570	240	268	172
6	130	115	257	165	172	452	3040	510	506	1650	250	111
7	142	122	462	156	131	381	1540	462	457	5420	194	133
8	110	117	231	140	95	341	1170	520	405	1460	189	113
9	147	118	182	131	100	351	989	756	368	785	151	99
10	168	107	110	116	87	316	883	489	324	609	144	159
11	182	157	82	116	87	292	744	398	302	551	144	141
12	147	194	390	110	242	292	668	376	266	759	137	143
13	96	104	2130	104	266	297	611	433	256	473	155	146
14	93	80	1620	108	281	1670	574	419	283	377	141	176
15	85	100	671	110	1270	1030	686	346	240	328	136	163
16	89	458	462	105	870	871	1100	332	198	351	116	159
17	127	201	295	98	469	833	865	288	200	337	134	136
18	119	133	235	108	387	652	699	272	294	402	123	148
19	159	48	261	110	340	589	801	289	372	435	119	148
20	133	33	215	96	325	545	801	363	246	285	158	164
21	81	295	184	86	282	545	626	953	198	428	133	171
22	91	138	894	74	253	607	456	449	185	402	158	183
23	85	78	735	100	239	515	501	386	218	287	164	185
24	781	76	304	220	705	429	537	459	212	253	167	189
25	229	614	286	560	411	393	474	335	964	220	136	191
26	123	257	259	300	332	386	424	313	345	183	161	170
27	97	145	282	220	278	378	410	405	222	481	175	180
28	82	222	715	180	476	465	381	352	188	393	191	203
29	78	711	1020	150	525	709	373	2110	171	261	149	173
30	77	278	327	130	---	714	333	4500	242	219	143	178
31	96	---	239	110	---	761	---	2040	---	200	135	---
TOTAL	4449	5426	14071	4876	10582	16171	28416	21745	11847	19996	4960	4837
MEAN	144	181	454	157	365	522	947	701	395	645	160	161
MAX	781	711	2130	560	1430	1670	5150	4500	1230	5420	268	238
MIN	77	33	76	74	87	236	333	221	171	183	116	99

CAL YR 1983 TOTAL- 141875 MEAN 389 MAX 4740 MIN 33
WTR YR 1984 TOTAL 147376 MEAN 403 MAX 5420 MIN 33

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ

LOCATION.--Lat 40°31'01", long 74°48'12", Hunterdon County, Hydrologic Unit 02030105, at bridge on Main Street in Three Bridges, 0.4 mi northeast of Voorhees Corner, 1.3 mi downstream of Bushkill Brook, and 2.2 mi southeast of Darts Mills.

DRAINAGE AREA.--181 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 06...	1145	143	240	8.2	19.0	10.2	--	2.7	2400	540
FEB 01...	1145	64	387	7.5	1.0	13.6	--	E1.7	<20	<2
MAR 26...	1145	440	206	8.6	6.5	14.2	--	E2.4	70	920
MAY 15...	1015	392	194	8.3	13.0	10.6	100	E1.4	170	17
JUL 12...	1000	990	198	7.8	21.0	8.6	97	E2.1	2400	1600
AUG 06...	1000	510	215	8.0	22.5	8.6	100	E2.0	16000	1600

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	87	22	7.7	12	1.7	59	28	17	.10
FEB 01...	99	25	8.9	30	2.1	63	31	48	<.10
MAR 26...	67	16	6.6	11	1.2	43	22	18	<.10
MAY 15...	67	16	6.5	9.9	1.2	47	19	17	.10
JUL 12...	63	15	6.3	8.2	1.5	46	18	12	<.10
AUG 06...	74	17	7.7	8.3	1.4	58	11	16	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	6.2	135	.014	.79	<.050	.30	1.1	.170	5.4
FEB 01...	11	221	.027	1.8	.280	.50	2.3	.240	3.3
MAR 26...	9.4	116	.014	1.3	.210	.30	1.6	.060	2.0
MAY 15...	8.7	161	.039	1.1	.220	.66	1.8	.080	2.0
JUL 12...	11	124	.016	1.1	.080	.57	1.7	.190	3.1
AUG 06...	12	122	.030	1.1	.120	.47	1.5	.130	2.7

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
06...	1145	<.5	10	2	<10	40	<1	10	<10
MAY									
15...	1015	<.5	10	<1	<10	20	<1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
06...	320	3	40	<.1	6	<1	10	5
MAY								
15...	260	2	50	<.1	3	<1	10	<1

01398000 NESHANIC RIVER AT REAVILLE, NJ

LOCATION.--Lat 40°28'18", long 74°49'42", Hunterdon County, Hydrologic Unit 02030105, on left bank 50 ft downstream from highway bridge, 0.6 ft southwest of Reaville, 1.5 mi downstream from Third Neshanic River, and 2.2 mi upstream from Back Brook.

DRAINAGE AREA.--25.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1930 to current year.

REVISED RECORDS.--WSP 1552: 1933, 1934(M), 1936(M), 1938, 1940(M), 1942(M), 1945-46, 1951, 1952(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 26, 1935. Datum of gage is 109.46 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--54 years, 36.6 ft³/s, 19.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft³/s Aug. 28, 1971, gage height, 13.84 ft, from high-water mark in gage house, from rating curve extended above 1,700 ft³/s on basis of slope-area measurement 0.7 mi downstream (adjusted to present site) at gage height 11.90 ft; no flow many days 1965, 1966, and part of July 17, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1845	2430	8.20	May 29	1830	1900	7.58
Dec. 28	1945	1600	7.07	May 30	0630	1930	7.62
Apr. 5	0715	3030	8.82	July 7	0700	*3820	9.47

Minimum discharge, 1.0 ft³/s Oct. 10, 11, Sept. 22, 23, gage height, 2.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	5.3	54	27	18	63	225	24	113	68	14	2.4
2	2.8	4.9	42	24	16	48	131	20	74	20	12	2.2
3	1.9	4.8	45	22	22	39	90	22	56	12	11	2.2
4	1.4	4.9	403	22	312	32	121	321	44	9.6	9.5	8.7
5	3.2	4.2	119	21	78	47	1330	82	33	9.0	72	3.7
6	3.8	3.6	151	20	66	96	231	55	28	33	28	2.5
7	1.7	3.3	162	19	41	60	110	45	23	956	18	2.3
8	1.5	3.0	67	18	26	43	78	74	19	84	15	2.1
9	1.5	2.9	52	17	28	45	62	91	16	47	11	1.9
10	1.1	34	45	19	40	35	52	48	14	34	9.6	1.9
11	1.0	77	36	20	68	34	45	39	13	68	8.8	2.4
12	5.4	33	361	14	87	28	39	36	11	58	7.7	1.9
13	5.6	21	1360	15	56	64	34	31	9.7	26	7.1	1.6
14	8.0	17	456	17	78	672	31	29	12	19	6.5	1.6
15	3.9	50	131	15	587	259	46	24	8.6	15	5.7	2.2
16	2.7	262	85	14	219	161	209	21	7.5	25	5.0	2.0
17	2.3	57	64	15	111	108	83	18	9.5	15	4.3	1.5
18	2.2	36	51	15	88	80	72	17	15	34	3.9	1.3
19	15	28	45	14	69	67	130	19	29	40	3.6	1.4
20	6.9	23	33	10	59	55	90	23	10	17	3.8	1.2
21	4.7	114	26	11	48	60	63	79	7.8	50	3.1	1.2
22	3.6	42	392	11	39	54	49	24	7.1	29	2.9	1.1
23	17	31	114	14	36	42	75	32	6.3	19	7.2	1.2
24	189	43	62	21	197	34	71	34	9.5	16	4.3	2.1
25	39	335	43	40	83	33	49	20	68	12	3.2	2.3
26	23	104	36	63	61	31	40	23	15	9.7	2.8	2.1
27	16	64	30	49	47	26	34	39	11	151	2.6	2.3
28	12	126	344	39	283	91	30	45	8.6	42	2.5	4.2
29	8.5	276	131	31	116	298	31	665	7.7	27	2.6	2.2
30	6.6	77	47	26	---	316	27	1000	7.8	21	2.7	1.5
31	6.1	---	32	24	---	388	---	277	---	17	3.0	---
TOTAL	399.2	1886.9	5019	687	2979	3409	3678	3277	694.1	1983.3	293.4	67.2
MEAN	12.9	62.9	162	22.2	103	110	123	106	23.1	64.0	9.46	2.24
MAX	189	335	1360	63	587	672	1330	1000	113	956	72	8.7
MIN	1.0	2.9	26	10	16	26	27	17	6.3	9.0	2.5	1.1
CFSM	.50	2.45	6.30	.86	4.01	4.28	4.79	4.12	.90	2.49	.37	.09
IN.	.58	2.73	7.26	.99	4.31	4.93	5.32	4.74	1.00	2.87	.42	.10

CAL YR 1983 TOTAL 23334.57 MEAN 63.9 MAX 1480 MIN .42 CFSM 2.49 IN. 33.78
WTR YR 1984 TOTAL 24373.1 MEAN 66.6 MAX 1360 MIN 1.0 CFSM 2.59 IN. 35.28

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1962, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 06...	1330	4.0	955	8.7	20.0	13.5	--	3.6	>24000	>2400
FEB 01...	1330	33	765	7.4	.0	14.2	--	2.3	50	22
MAR 26...	1330	30	597	8.9	10.5	15.5	--	E2.2	70	2
MAY 15...	1230	25	233	9.0	13.0	14.3	137	2.7	230	31
JUL 25...	1300	13	--	8.4	25.0	11.1	135	E1.8	1400	280
AUG 09...	1415	11	395	9.1	26.5	13.8	172	E1.9	2400	920

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	210	56	17	130	6.5	77	110	200	.10
FEB 01...	150	40	13	76	2.1	44	49	170	<.10
MAR 26...	95	24	8.4	69	1.6	32	34	130	<.10
MAY 15...	80	21	6.7	12	1.3	47	35	14	.10
JUL 25...	120	33	9.8	21	2.0	54	52	43	<.10
AUG 09...	130	35	10	23	2.1	62	53	47	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	2.7	613	.053	.58	<.050	.72	1.3	.260	8.7
FEB 01...	12	456	.019	2.2	.060	.34	2.6	.070	2.6
MAR 26...	11	319	.012	2.2	<.050	.38	2.6	.060	1.6
MAY 15...	8.4	169	.019	1.3	.280	.88	2.2	.110	14
JUL 25...	11	258	.027	1.7	.080	.32	2.0	.110	2.4
AUG 09...	8.8	235	.020	.97	<.050	.35	1.3	.100	2.8

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT									
06...	1330	<.5	30	2	<10	110	<1	<10	10

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
06...	550	5	40	<.1	5	<1	50	5

01398045 BACK BROOK TRIBUTARY NEAR RINGOES, NJ

LOCATION.--Lat 40°25'41", long 74°49'52", Hunterdon County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on Wertsville Road, 2.1 mi east of Ringoes, 1.3 mi upstream from Back Brook, and 2.3 mi southwest of Wertsville.

DRAINAGE AREA.--1.98 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 161.6 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those below 1.0 ft^3/s, which are poor.

AVERAGE DISCHARGE.--7 years, 4.88 ft^3/s, 33.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft^3/s Aug. 3, 1979, gage height, 5.05 ft, from rating curve extended above 200 ft^3/s on basis of contracted-opening measurement at gage height 4.64 ft; minimum daily, 0.01 ft^3/s Feb. 19, 1979, Sept. 14, 22, 1981, and Oct. 1, 3-5, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 30	---	523	3.01
July 7	0715	*948	4.20

Minimum discharge, 0.03 ft^3/s Oct. 1-5, gage height 0.53 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.20	2.4	1.5	.98	2.8	15	1.8	5.4	2.2	.20	.12
2	.03	.20	1.8	1.4	1.0	2.1	8.2	1.6	3.2	1.8	.18	.11
3	.03	.24	2.4	1.4	9.1	1.6	5.5	2.0	2.4	1.5	.17	.11
4	.03	.27	37	1.3	19	1.4	10	19	1.8	1.4	.16	.18
5	.04	.28	7.0	1.4	4.8	3.8	118	5.1	1.3	1.6	.71	.13
6	.06	.28	12	1.3	3.5	7.5	11	3.2	1.1	2.9	.27	.12
7	.04	.26	7.8	1.3	1.9	3.7	6.0	2.7	.91	78	.20	.11
8	.04	.30	3.8	1.2	1.3	2.5	4.2	4.2	.79	2.5	.18	.10
9	.04	.35	3.0	1.0	1.2	3.5	3.4	4.3	.80	1.3	.16	.09
10	.04	3.5	2.6	1.8	1.6	2.2	3.1	2.9	.76	1.1	.15	.10
11	.05	5.8	2.2	2.5	3.9	2.0	2.8	2.4	.74	1.9	.15	.10
12	.22	2.5	39	1.3	5.7	1.6	2.5	2.5	.74	1.4	.14	.09
13	.13	1.7	95	1.3	3.6	13	2.3	2.4	.80	.97	.13	.08
14	.42	1.4	19	1.2	7.1	50	2.3	2.2	.99	.82	.13	.08
15	.08	11	6.6	1.2	41	15	3.7	1.9	.81	.76	.12	.10
16	.07	15	4.4	1.2	9.5	11	18	1.8	.77	.89	.12	.08
17	.06	2.8	3.4	.92	4.8	7.2	6.0	1.6	1.0	.75	.12	.08
18	.08	1.6	2.9	1.0	3.6	4.9	4.3	1.5	1.4	2.3	.11	.08
19	.37	1.2	2.6	.96	2.8	4.1	9.1	1.6	1.9	1.6	.11	.07
20	.16	1.1	2.0	.82	2.5	3.5	5.8	2.5	1.1	.94	.11	.06
21	.15	8.3	1.7	.90	2.1	3.9	3.7	5.5	.99	1.4	.10	.06
22	.16	2.3	44	1.0	1.7	3.6	3.0	2.1	.92	1.1	.10	.06
23	1.3	1.5	7.3	1.2	2.0	2.9	5.3	1.8	.92	.94	.17	.06
24	9.2	2.4	4.0	7.4	15	2.6	4.7	1.7	1.6	.84	.13	.06
25	.75	21	2.7	16	5.0	2.6	3.3	1.3	5.0	.75	.12	.06
26	.37	5.5	2.1	6.5	3.1	2.5	2.8	2.7	1.7	.68	.12	.06
27	.26	3.1	1.7	5.3	2.4	2.3	2.5	2.8	1.5	6.0	.12	.06
28	.21	9.2	27	2.8	18	13	2.3	4.0	1.4	.69	.12	.07
29	.20	11	7.3	1.6	5.9	32	2.4	44	1.3	.36	.13	.06
30	.20	3.5	2.9	1.4	---	18	2.1	74	1.7	.29	.12	.06
31	.20	---	1.9	1.2	---	25	---	15	---	.24	.13	---
TOTAL	15.02	117.78	359.5	71.30	184.08	251.8	273.3	222.1	45.74	119.92	4.98	2.60
MEAN	.48	3.93	11.6	2.30	6.35	8.12	9.11	7.16	1.52	3.87	.16	.09
MAX	9.2	21	95	16	41	50	118	74	5.4	78	.71	.18
MIN	.03	.20	1.7	.82	.98	1.4	2.1	1.3	.74	.24	.10	.06
CFSM	.24	1.98	5.86	1.16	3.21	4.10	4.60	3.62	.77	1.95	.08	.04
IN.	.28	2.21	6.75	1.34	3.46	4.73	5.13	4.17	.86	2.25	.09	.05

CAL YR 1983 TOTAL 1776.54 MEAN 4.87 MAX 129 MIN .02 CFSM 2.46 IN. 33.38
WTR YR 1984 TOTAL 1668.12 MEAN 4.56 MAX 118 MIN .03 CFSM 2.30 IN. 31.34

01398107 HOLLAND BROOK AT READINGTON, NJ

LOCATION.--Lat 40°33'30", long 74°43'50", Somerset County, Hydrologic Unit 02030105, on right bank 15 ft downstream from bridge on Old York Road, 0.9 mi southeast of Readington, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--9.00 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1978 to current year.

REVISED RECORDS.--WDR NJ-80-1: 1978, 1979(P). WDR NJ-82-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage and concrete parking-block control. Datum of gage is 77.65 ft National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair except those for period of no gage-height record, May 1 to 6, which are poor.

AVERAGE DISCHARGE.--6 years, 16.6 ft^3/s, 25.05 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft^3/s July 7, 1984, gage height, 8.08 ft; minimum, 0.22 ft^3/s Aug. 28, 1980, gage height, 1.61 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	1830	640	5.40	Apr. 5	0550	770	5.96
Dec. 22	1325	431	4.46	May 29	1730	989	6.84
Dec. 28	1935	504	4.80	May 30	0535	644	5.42
Feb. 15	1105	448	4.54	July 7	0545	*1300	8.08
Mar. 14	0215	404	4.34				

Minimum discharge, 0.53 ft^3/s Oct. 10, gage height, 1.59 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.8	27	13	6.9	28	79	8.4	53	24	7.7	1.4
2	1.5	2.6	22	12	6.5	20	52	7.6	36	10	6.6	1.4
3	1.1	2.5	20	10	9.2	17	38	14	27	6.7	5.7	1.4
4	.97	2.5	116	10	83	14	54	47	22	5.3	5.1	2.3
5	1.7	2.1	53	9.6	33	17	405	48	18	4.7	8.2	1.6
6	2.1	2.0	58	8.9	27	28	89	26	16	10	5.9	1.4
7	.93	2.0	58	7.8	17	23	49	21	13	346	6.4	1.4
8	.94	1.8	33	6.3	13	19	36	30	11	64	6.1	1.4
9	.89	1.8	25	5.4	12	18	28	35	9.7	36	4.0	1.4
10	.84	8.4	22	7.4	15	15	25	27	8.0	26	3.7	1.4
11	.87	35	18	8.4	24	14	21	22	6.9	25	3.5	1.5
12	1.5	22	120	5.6	31	12	19	19	5.8	19	3.2	1.4
13	1.6	16	399	5.3	21	22	17	17	5.6	12	2.9	1.3
14	3.6	12	148	5.6	27	207	15	16	6.0	8.8	2.7	1.4
15	1.2	18	56	4.9	211	81	18	13	4.5	7.2	2.5	1.4
16	1.0	102	38	4.4	82	55	53	11	4.0	9.2	2.2	1.3
17	.97	30	28	4.5	47	43	36	9.7	4.3	6.8	2.2	1.2
18	.97	21	21	4.3	37	35	29	8.9	7.1	13	1.9	1.2
19	7.1	17	18	4.4	30	29	25	9.1	12	8.8	1.9	1.3
20	2.4	14	14	3.5	25	23	21	18	4.7	5.7	1.9	1.4
21	1.7	43	12	3.0	19	23	19	38	3.9	25	1.6	1.3
22	1.4	25	121	2.4	17	20	17	20	3.4	14	1.5	1.2
23	7.5	20	53	2.8	16	18	19	21	3.1	9.4	2.1	1.2
24	60	21	33	6.1	50	16	19	18	7.2	7.6	1.7	1.2
25	17	112	20	22	35	15	17	15	22	5.6	1.5	1.2
26	11	50	16	22	25	14	15	16	5.7	4.6	1.5	1.2
27	7.6	31	14	25	19	12	13	15	4.5	44	1.5	1.2
28	5.7	40	97	18	51	23	12	21	3.9	22	1.5	1.7
29	4.5	95	41	13	41	58	11	295	3.6	16	1.5	1.6
30	3.5	38	22	11	---	77	11	357	4.0	12	1.5	1.4
31	3.3	---	16	9.8	---	122	---	111	---	9.4	1.9	---
TOTAL	156.48	790.5	1739	276.4	1030.6	1118	1262	1334.7	335.9	817.8	102.1	41.7
MEAN	5.05	26.4	56.1	8.92	35.5	36.1	42.1	43.1	11.2	26.4	3.29	1.39
MAX	60	112	399	25	211	207	405	357	53	346	8.2	2.3
MIN	.84	1.8	12	2.4	6.5	12	11	7.6	3.1	4.6	1.5	1.2
CFSM	.56	2.93	6.23	.99	3.94	4.01	4.68	4.79	1.24	2.93	.37	.15
IN.	.65	3.27	7.19	1.14	4.26	4.62	5.22	5.52	1.39	3.38	.42	.17

CAL YR 1983 TOTAL 8150.25 MEAN 22.3 MAX 399 MIN .72 CFSM 2.48 IN. 33.69
WTR YR 1984 TOTAL 9005.18 MEAN 24.6 MAX 405 MIN .84 CFSM 2.73 IN. 37.22

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ

LOCATION.--Lat 40°46'16", long 74°37'34", Morris County, Hydrologic Unit 02030105, at bridge on State Route 24, 0.8 mi upstream from Burnett Brook, and 3.8 mi east of Chester.

DRAINAGE AREA.--7.57 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 30...	1200	E6.2	290	6.5	2.0	15.2	--	2.5	<20	17
MAR 20...	1330	E16	177	7.9	8.0	12.5	--	E1.5	40	33
MAY 23...	1345	E13	168	7.7	18.0	8.9	96	3.4	80	240
JUL 24...	1110	E14	190	7.1	19.0	9.4	--	E2.1	490	220
AUG 15...	1140	E7.5	218	7.4	21.0	8.4	95	2.8	170	1600

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 30...	64	16	5.9	28	1.6	44	18	46	<.10
MAR 20...	48	12	4.4	14	1.1	25	16	27	<.10
MAY 23...	55	14	4.9	11	1.3	30	15	21	.10
JUL 24...	56	14	5.1	11	1.4	34	14	19	<.10
AUG 15...	63	16	5.7	12	1.6	42	14	22	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 30...	15	169	.017	1.2	1.16	1.4	2.6	.320	2.7
MAR 20...	13	122	.015	.83	.430	.52	1.4	.110	1.9
MAY 23...	14	130	.061	1.0	.690	.86	1.9	.210	2.1
JUL 24...	16	130	.114	1.1	.140	.50	1.6	.170	2.4
AUG 15...	16	141	.190	1.7	.160	.39	2.1	.270	2.6

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY									
23...	1345	<.5	<10	<1	<10	30	1	<10	3

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
23...	260	4	20	<.1	4	<1	20	<1

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, Hydrologic Unit 02030105, on left bank 75 ft upstream from Ravine Lake Dam, 1.6 mi north of Far Hills, and 2.3 mi upstream from Peapack Brook. Water-quality samples collected at bridge 900 ft downstream from gage.
DRAINAGE AREA.--26.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1975, October 1977 to current year. Operated as crest-stage gage water years 1976-77. Monthly discharge only for some periods, published in WSP 1302.
REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23, 1924-25(M), 1935(M). WSP 1902: 1954.
GAGE.--Water-stage recorder and crest-stage gage above masonry dam. Datum of gage is 224.49 ft National Geodetic Vertical Datum of 1929 (New Jersey Geological Survey bench mark). Prior to June 18, 1925, nonrecording gage in stilling box at left end of dam at same datum.
REMARKS.--Water-discharge records fair. Records given herein include diversion by small turbine at dam and returned to river 1,000 ft downstream from Ravine Lake Dam. Flow regulated occasionally by operation of waste gate in dam (no gate opening this year).
COOPERATION.--Gage-height record collected in cooperation with Somerset County.
AVERAGE DISCHARGE.--61 years (water years 1922-75, 1978-84) 48.2 ft³/s, 24.98 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft³/s Aug. 28, 1971, gage height, 7.28 ft, from rating curve extended above 2,000 ft³/s on basis of computation of peak flow over dam; no flow at times when Ravine Lake was filling.
EXTREMES OUTSIDE PERIOD OF RECORD.--Stage of 7.6 ft, from floodmark, occurred July 23, 1919, discharge about 7,000 ft³/s.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1300	817	3.51	May 29	1745	1570	4.30
Dec. 22	1745	738	3.41	May 30	0645	809	3.50
Dec. 28	2315	884	3.59	July 6	0015	971	3.69
Feb. 15	1130	769	3.45	July 7	0515	*4610	6.40
Apr. 5	0815	2020	4.69	July 11	2100	746	3.42
May 4	0545	730	3.40				

Minimum daily discharge, 9.0 ft³/s Oct. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	48	61	34	71	151	63	182	192	47	30
2	25	15	44	58	33	65	151	59	145	70	52	27
3	18	16	44	57	40	63	145	61	126	47	58	30
4	12	15	108	57	155	60	169	325	113	41	48	75
5	11	13	75	56	69	76	1260	132	101	74	58	37
6	19	13	83	55	54	121	444	126	93	291	51	25
7	12	13	142	53	48	77	283	119	89	1170	45	21
8	10	13	64	49	41	66	208	166	77	187	43	20
9	10	13	63	47	41	66	168	137	71	128	40	20
10	10	15	62	48	42	60	144	85	66	107	42	20
11	10	51	59	51	55	59	127	78	59	194	43	23
12	18	38	128	40	81	55	114	91	55	155	55	21
13	32	24	529	44	63	62	105	99	54	94	58	19
14	41	21	287	48	71	247	99	87	53	82	41	19
15	24	23	145	44	408	121	128	75	48	76	36	20
16	12	101	119	39	150	124	225	70	45	85	33	20
17	9.0	40	103	45	102	118	127	67	47	70	40	19
18	9.0	29	90	44	90	102	130	65	59	86	37	19
19	44	25	82	43	85	96	131	68	57	71	36	18
20	29	23	72	40	80	90	108	74	45	59	40	18
21	16	68	62	36	72	129	95	118	41	160	35	17
22	13	40	265	33	67	124	88	68	39	87	31	17
23	21	32	143	30	66	94	94	74	38	64	38	17
24	240	34	85	29	179	86	99	81	68	58	40	17
25	44	118	64	104	92	84	85	63	197	53	33	16
26	30	60	65	62	78	79	76	63	49	50	33	17
27	24	50	68	56	70	75	71	67	42	126	24	17
28	20	55	160	52	105	99	69	71	39	68	22	18
29	17	149	239	43	96	122	68	517	37	56	22	18
30	16	58	77	41	---	103	65	593	41	53	23	17
31	15	---	66	41	---	122	---	287	---	51	27	---
TOTAL	825.0	1180	3641	1506	2567	2916	5227	4049	2176	4105	1231	672
MEAN	26.6	39.3	117	48.6	88.5	94.1	174	131	72.5	132	39.7	22.4
MAX	240	149	529	104	408	247	1260	593	197	1170	58	75
MIN	9.0	13	44	29	33	55	65	59	37	41	22	16
CFSM	1.02	1.50	4.47	1.85	3.38	3.59	6.64	5.00	2.77	5.04	1.52	.85
IN.	1.17	1.68	5.17	2.14	3.64	4.14	7.42	5.75	3.09	5.83	1.75	.95

CAL YR 1983 TOTAL 25619.2 MEAN 70.2 MAX 826 MIN 6.9 CFSM 2.68 IN. 36.38
WTR YR 1984 TOTAL 30095.0 MEAN 82.2 MAX 1260 MIN 9.0 CFSM 3.14 IN. 42.73

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'09", long 74°40'56", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 0.1 mi upstream from Lamington River, and 4.0 mi southwest of Far Hills.

DRAINAGE AREA.--63.8 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB 08...	0950	E78	260	6.8	.5	14.2	--	2.3	<20	79
APR 18...	1040	E166	175	7.6	11.0	12.2	--	E2.0	80	49
MAY 24...	1230	E137	172	8.2	17.5	10.3	107	E2.3	330	70
JUL 31...	1030	E87	200	7.4	18.0	7.7	81	E1.2	490	920
AUG 13...	1145	E108	188	8.1	22.0	8.6	99	E1.5	1700	1600

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 08...	65	16	6.1	22	1.4	36	19	40	<.10
APR 18...	52	13	4.8	9.2	1.4	33	19	17	<.10
MAY 24...	59	15	5.2	8.8	1.1	38	18	16	<.10
JUL 31...	67	17	6.0	9.0	1.3	48	18	16	<.10
AUG 13...	65	16	6.0	9.4	1.3	47	17	16	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 08...	12	166	.017	1.3	.250	1.1	2.4	.070	2.7
APR 18...	12	108	.021	.75	.140	.25	1.0	.040	2.0
MAY 24...	13	136	.025	.78	.110	.25	1.0	.080	2.3
JUL 31...	14	134	.018	.84	<.050	.31	1.2	.070	2.2
AUG 13...	15	129	.014	.91	.070	.25	1.2	.070	2.1

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
24...	1230	<.5	10	<1	<10	60	1	40	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
24...	620	16	40	<.1	4	<1	30	<1

01399190 LAMINGTON (BLACK) RIVER AT SUCCASUNNA, NJ

LOCATION.--Lat 40°51'03", long 74°38'02", Morris County, Hydrologic Unit 02030105, on right bank, 10 ft upstream from bridge on Righter Road, 0.7 mi south of Succasunna, and 0.4 mi upstream from Succasunna Brook.

DRAINAGE AREA.--7.37 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder and prefabricated concrete bumper-block control. Datum of gage is 692.92 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--8 years, 12.1 ft^3/s, 22.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft^3/s Jan. 24, 1979, gage height, 5.20 ft; minimum, 1.2 ft^3/s Sept. 11, 12, 1980, gage height, 2.27 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0115	51	3.97	May 31	0315	84	4.33
Apr. 5	1215	109	4.59	July 7	0600	*153	4.88
Apr. 16	1400	43	3.87	July 11	2330	45	3.84
May 4	0545	41	3.84				

Minimum discharge, 2.8 ft^3/s Oct. 11, 12, gage height, 2.45 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.2	12	17	7.6	18	25	16	69	22	14	8.4
2	5.7	4.1	11	14	6.8	15	26	15	57	23	13	7.8
3	4.7	4.3	10	12	7.1	13	26	16	45	18	13	9.3
4	3.7	4.1	14	12	23	12	27	35	37	15	13	22
5	4.3	4.1	15	11	16	13	91	33	30	17	15	16
6	4.9	4.5	14	11	12	24	98	28	26	40	14	11
7	4.2	4.2	16	11	9.0	21	83	22	25	108	12	8.4
8	3.7	3.4	13	13	9.8	18	66	22	22	80	11	7.5
9	3.8	3.3	12	10	7.2	16	54	25	21	60	10	7.0
10	3.6	4.3	11	9.8	6.6	15	44	23	19	42	11	6.9
11	3.0	6.3	11	9.8	10	14	38	21	17	34	11	7.2
12	5.5	6.3	14	11	12	13	33	20	16	44	12	6.8
13	6.2	5.2	36	9.0	11	15	30	22	15	39	12	6.1
14	6.9	4.5	51	9.0	12	42	28	21	15	32	9.9	5.8
15	5.8	4.5	42	8.5	30	29	31	19	14	26	9.5	6.0
16	5.2	8.7	31	9.0	32	26	38	17	13	24	9.1	6.0
17	4.5	7.5	25	7.8	25	25	40	16	13	23	9.6	5.5
18	3.9	6.2	22	7.8	20	23	36	15	15	25	9.0	4.8
19	9.3	5.4	20	7.9	18	21	32	16	15	25	8.8	4.7
20	8.0	5.4	18	8.4	16	20	29	17	13	21	13	4.7
21	6.4	10	16	7.0	14	23	26	19	12	23	10	4.5
22	5.6	7.6	25	7.0	13	25	23	17	12	23	9.2	4.5
23	7.1	6.6	28	7.0	12	23	22	16	11	20	11	4.8
24	18	7.0	24	8.2	28	21	22	16	14	18	9.8	4.9
25	14	15	20	23	25	20	21	14	28	16	8.8	4.4
26	10	16	17	22	21	18	20	15	21	15	8.3	4.4
27	8.0	14	16	12	15	17	20	15	16	20	7.6	4.3
28	6.3	13	20	10	20	19	19	15	14	21	7.2	4.7
29	5.5	18	44	8.4	24	25	19	39	12	19	7.3	5.2
30	5.3	15	30	7.9	---	25	18	76	13	16	7.1	5.2
31	4.9	---	20	8.4	---	24	---	81	---	15	8.7	---
TOTAL	191.5	222.7	658	329.9	463.1	633	1085	742	650	924	324.9	208.8
MEAN	6.18	7.42	21.2	10.6	16.0	20.4	36.2	23.9	21.7	29.8	10.5	6.96
MAX	18	18	51	23	32	42	98	81	69	108	15	22
MIN	3.0	3.3	10	7.0	6.6	12	18	14	11	15	7.1	4.3
CFSM	.84	1.01	2.88	1.44	2.17	2.77	4.91	3.24	2.94	4.04	1.42	.94
IN	.97	1.12	3.32	1.67	2.34	3.20	5.48	3.75	3.28	4.66	1.64	1.05

CAL YR 1983 TOTAL 5431.9 MEAN 14.9 MAX 83 MIN 2.3 CFSM 2.02 IN 27.42
WTR YR 1984 TOTAL 6432.9 MEAN 17.6 MAX 108 MIN 3.0 CFSM 2.39 IN 32.47

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ

LOCATION.--Lat 40°50'07", long 74°38'40", Morris County, Hydrologic Unit 02030105, on left bank 15 ft upstream from bridge on Ironia Road, 1.0 mi below Succasunna Brook, 1.3 mi northwest of Ironia, and 4.4 mi northeast of Chester.

DRAINAGE AREA.--10.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR NJ-82-1: 1981(P).

GAGE.--Water-stage recorder and concrete block control. Datum of gage is 687.4 ft, revised, National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Water for municipal supply pumped from wells upstream of gage by Morris County Municipal Utilities Authority.

AVERAGE DISCHARGE.--9 years, 20.3 ft³/s, 25.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 389 ft³/s July 7, 1984, gage height, 5.15 ft; maximum gage height, 5.27 ft Jan. 25, 1979; minimum daily discharge, 1.5 ft³/s Oct. 1, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0100	98	4.14	Apr. 16	2245	81	3.76
Dec. 23	0915	100	4.16	May 4	1445	91	3.85
Dec. 29	0515	84	4.00	May 30	1015	190	4.47
Jan. 25	1815	83	3.93	June 25	1100	83	3.77
Feb. 15	2145	93	3.92	July 7	1415	*389	5.15
Apr. 5	1600	276	4.81				

Minimum discharge, 4.9 ft³/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	7.8	18	26	13	27	41	23	101	38	23	14
2	11	7.8	15	22	10	21	45	20	83	58	21	12
3	8.8	8.0	14	19	11	19	44	21	67	37	22	11
4	6.1	7.8	20	18	34	18	42	76	57	24	20	48
5	5.5	7.8	29	17	29	19	193	63	47	25	29	50
6	7.6	8.1	22	17	18	36	176	48	41	101	30	31
7	6.6	7.8	31	17	15	29	123	38	37	296	23	21
8	6.1	7.2	23	20	16	23	97	37	34	191	20	16
9	6.2	7.0	16	15	11	20	81	50	30	98	18	15
10	6.0	7.7	16	15	10	24	68	40	27	70	19	14
11	5.6	12	15	15	12	17	60	34	24	58	21	17
12	8.3	11	19	18	19	19	53	31	19	71	21	15
13	11	9.3	64	14	18	16	50	36	18	59	25	13
14	11	8.6	88	14	20	59	46	35	18	50	19	11
15	9.3	8.4	60	13	63	56	52	29	17	44	17	11
16	8.3	18	45	14	69	46	68	25	15	38	15	12
17	7.7	15	36	12	44	44	72	21	16	39	16	11
18	7.1	11	30	12	34	38	60	20	24	39	15	9.6
19	14	9.2	26	12	31	33	58	21	22	44	14	9.0
20	14	8.4	21	13	28	30	52	24	18	36	24	8.9
21	9.8	18	21	11	24	32	45	40	16	38	20	8.3
22	8.7	15	33	11	20	43	39	27	14	46	16	7.9
23	9.8	10	65	11	19	35	38	23	13	36	18	8.1
24	32	10	40	13	44	30	39	29	19	32	19	8.7
25	31	25	41	36	41	27	36	20	73	25	15	8.1
26	18	30	22	34	32	24	34	19	45	22	14	7.4
27	12	22	20	18	24	21	31	24	27	35	12	6.9
28	9.9	19	29	16	27	25	29	23	22	41	11	7.6
29	9.0	34	71	13	36	34	28	76	18	32	11	8.4
30	8.6	28	46	12	---	43	27	181	18	26	11	8.7
31	8.5	---	33	12	---	38	---	138	---	27	15	---
TOTAL	323.5	398.9	1029	510	772	946	1827	1292	980	1776	574	429.6
MEAN	10.4	13.3	33.2	16.5	26.6	30.5	60.9	41.7	32.7	57.3	18.5	14.3
MAX	32	34	88	36	69	59	193	181	101	296	30	50
MIN	5.5	7.0	14	11	10	16	27	19	13	22	11	6.9
CFSM	.95	1.22	3.05	1.51	2.44	2.80	5.59	3.83	3.00	5.26	1.70	1.31
IN.	1.10	1.36	3.51	1.74	2.63	3.23	6.24	4.41	3.34	6.06	1.96	1.47

CAL YR 1983 TOTAL 8744.1 MEAN 24.0 MAX 139 MIN 3.8 CFSM 2.20 IN. 29.84
WTR YR 1984 TOTAL 10858.0 MEAN 29.7 MAX 296 MIN 5.5 CFSM 2.72 IN. 37.06

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
05...	1100	5.3	335	7.5	16.5	6.5	--	2.8	700	540
JAN										
30...	1050	12	402	6.8	2.0	10.8	--	E8.3	<20	70
MAR										
20...	1045	30	358	7.5	5.0	10.5	--	3.5	50	7
MAY										
23...	1045	21	328	7.5	19.0	5.6	62	6.4	310	240
JUL										
24...	1000	33	290	7.1	22.0	5.4	--	<1.2	330	540
AUG										
15...	1030	17	322	7.3	23.0	5.5	65	E1.9	430	920

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	100	23	11	36	2.7	85	22	38	.10
JAN									
30...	97	23	9.6	41	2.8	81	23	53	<.10
MAR									
20...	86	21	8.1	33	1.9	66	20	50	<.10
MAY									
23...	90	22	8.4	25	2.0	70	19	41	.10
JUL									
24...	85	21	7.8	22	1.8	69	17	32	.10
AUG									
15...	90	22	8.5	24	2.0	76	18	35	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	10	204	.125	1.7	--	.83	2.5	.560	4.8
JAN									
30...	12	232	.485	2.4	.760	1.4	3.8	.480	5.4
MAR									
20...	10	213	.093	1.4	.640	E.60	--	.210	3.6
MAY									
23...	9.8	225	.142	1.3	.440	1.8	3.1	.400	4.6
JUL									
24...	10	182	.052	1.0	<.050	.70	1.7	.210	5.1
AUG									
15...	10	183	.052	1.4	.060	.66	2.0	.240	--

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
OCT										
05...	1100	580	.1	2.0	<1	2	3	<10	<10	2400

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
05...	10	140	<.01	<10	<1	90	4	<1.0	<.1	16

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT										
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'39", long 74°43'50", Morris County, Hydrologic Unit 02030105, on right bank 1.1 mi upstream from bridge on State Highway 512, 1.2 mi northwest of Pottersville, and 5.5 mi upstream from Cold Brook. Water-quality sample collected at bridge 1.1 mi downstream from gage at high flows.

DRAINAGE AREA.--32.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October and November 1921, published in WSP 1302. Prior to October 1952, published as "Black River near Pottersville".

REVISED RECORDS.--WSP 741: 1932. WSP 781: Drainage area. WSP 1552: 1922, 1924-29(M), 1931(M), 1933-34(M), 1938(P), 1939(M), 1940, 1941(M), 1942-46(P), 1947(M), 1948-49(P), 1951-52(P), 1953(M). WDR-NJ-80-1: Correction 1979(P).

GAGE.--Water-stage recorder. Concrete control since July 1, 1937. Datum of gage is 284.14 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to July 1, 1922, nonrecording gage on downstream side of highway bridge at Pottersville, 1.1 mi downstream at different datum.

REMARKS.--Water-discharge records good except those for periods of ice effect, Jan. 22 to 24, no gage-height record Apr. 3 to 27, and sluggish intake Feb. 25 to July 9, which are fair. Flow regulated occasionally by pond above station.

AVERAGE DISCHARGE.--63 years, 56.5 ft^3/s, 23.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft^3/s July 7, 1984, gage height, 5.94 ft, from floodmark, from rating curve extended above 380 ft^3/s on basis of slope-area measurement at gage height 4.71 ft; minimum, 1.3 ft^3/s Oct. 4, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 22	1245	386	3.07	July 5	2215	730	3.68
Dec. 28	1930	836	3.83	July 7	0300	*3460	a5.94
May 4	0315	428	3.16	July 11	1945	521	3.34
May 29	1615	603	3.48	July 21	1000	400	3.10
May 30	0530	423	3.15				

a From floodmark.

Minimum discharge, 12 ft^3/s Oct. 10, gage height, 1.52 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	26	85	104	53	85	142	72	271	141	70	27
2	19	22	77	90	75	79	144	68	222	101	65	26
3	18	21	70	83	57	77	216	72	185	81	60	28
4	18	20	99	79	134	73	410	248	156	81	56	62
5	20	19	90	78	84	80	800	150	132	126	78	45
6	18	18	91	76	78	100	720	144	115	212	63	42
7	16	18	114	74	77	87	580	119	101	861	54	48
8	15	18	91	70	65	83	440	129	90	366	53	51
9	14	18	83	66	63	72	345	125	79	331	51	45
10	13	21	78	64	54	67	275	106	73	275	51	44
11	13	55	69	62	70	69	240	102	68	256	48	42
12	20	47	99	66	88	62	215	99	65	211	49	35
13	22	35	264	71	82	75	195	94	62	161	48	31
14	26	31	242	70	94	219	170	89	59	142	46	30
15	22	34	216	61	276	146	185	82	54	127	45	29
16	22	78	183	66	214	172	210	80	51	125	43	28
17	22	47	148	63	180	165	245	75	54	110	42	26
18	21	41	123	58	144	140	220	70	64	116	39	25
19	38	43	106	57	119	125	195	70	61	104	38	24
20	30	40	87	54	105	111	170	81	54	92	37	23
21	25	76	72	49	93	112	150	100	51	153	34	22
22	26	49	181	45	85	112	130	84	47	118	34	21
23	43	43	144	42	80	103	115	89	42	100	42	20
24	126	52	101	40	137	99	112	89	79	94	39	20
25	62	107	80	112	114	92	106	75	117	86	36	20
26	60	83	102	90	114	81	102	75	77	76	35	19
27	63	77	96	82	103	74	83	74	85	125	33	18
28	56	92	184	77	114	91	84	78	78	95	31	21
29	45	144	180	71	109	98	82	254	64	82	30	21
30	37	94	119	65	---	90	78	344	60	81	29	20
31	30	---	97	58	---	113	---	306	---	77	32	---
TOTAL	974	1469	3771	2143	3061	3152	7159	3643	2716	5106	1411	913
MEAN	31.4	49.0	122	69.1	106	102	239	118	90.5	165	45.5	30.4
MAX	126	144	264	112	276	219	800	344	271	861	78	62
MIN	13	18	69	40	53	62	78	68	42	76	29	18
CFSM	.96	1.49	3.72	2.11	3.23	3.11	7.29	3.60	2.76	5.03	1.39	.93
IN.	1.10	1.67	4.28	2.43	3.47	3.57	8.12	4.13	3.08	5.79	1.60	1.04

CAL YR 1983 TOTAL 27721.7 MEAN 75.9 MAX 550 MIN 9.3 CFSM 2.31 IN. 31.44
WTR YR 1984 TOTAL 35518 MEAN 97.0 MAX 861 MIN 13 CFSM 2.96 IN. 40.28

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 05...	1200	19	235	7.1	16.0	9.8	--	E1.6	20	350
JAN 30...	1320	66	265	6.9	1.5	15.2	--	E1.4	700	21
MAR 20...	1215	110	--	7.9	6.0	12.5	--	E1.4	270	4
MAY 23...	1230	79	174	8.0	20.0	8.7	97	2.8	20	350
JUL 24...	1230	95	182	7.6	21.0	9.3	105	<1.0	130	920
AUG 15...	1315	45	210	7.8	22.5	9.1	105	E1.5	50	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	73	17	7.4	19	2.2	47	26	25	<.10
JAN 30...	59	14	5.9	26	1.5	40	17	39	<.10
MAR 20...	--	--	--	--	--	--	--	--	--
MAY 23...	58	14	5.5	12	1.1	44	12	21	.10
JUL 24...	56	14	5.2	11	1.1	44	9.7	18	<.10
AUG 15...	61	15	5.8	13	1.3	53	9.7	21	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	14	142	<.003	.66	<.050	.44	1.1	.110	4.1
JAN 30...	11	149	.014	1.3	.060	.37	1.7	.080	3.1
MAR 20...	--	--	.005	.69	<.050	.30	.99	.040	--
MAY 23...	7.3	173	.031	.49	.070	.53	1.0	.120	5.3
JUL 24...	13	120	.008	.40	<.050	.44	.84	.130	5.4
AUG 15...	14	124	.004	.55	<.050	.52	1.1	.120	4.7

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
05...	1200	<.5	<10	4	<10	150	<1	20	10
MAY									
23...	1230	<.5	10	<1	<10	30	1	<10	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
05...	490	<1	20	<.1	3	<1	20	<1
MAY								
23...	1200	3	110	<.1	2	<1	20	<1

01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'16", long 74°45'09", Hunterdon County, Hydrologic Unit 02030105, on right bank along a private dirt road, 400 ft downstream from the Pottersville Reservoir, and 1.5 mi west of Pottersville.
DRAINAGE AREA.--2.18 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.
GAGE.--Water-stage recorder and rock outcrop control. Datum of gage is 451.57 ft National Geodetic Vertical Datum of 1929.
REMARKS.--Water-discharge records good except those below 2.0 ft^3/s, which are fair. Flow regulated by Pottersville Reservoir, 400 ft above station, until August 1982 when dam was demolished.
AVERAGE DISCHARGE.--12 years, 4.06 ft^3/s, unadjusted.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s July 7, 1984, gage height, 3.91 ft, from rating curve extended above 20 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.03 ft^3/s Aug. 28, 29, Sept. 3, 8, 1980.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s, revised, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 22	1215	106	1.96	June 24	2300	108	1.97
Dec. 28	1830	189	2.25	July 1	1345	125	2.04
Apr. 5	0315	147	2.12	July 5	2200	219	2.33
May 4	0145	117	2.01	July 7	Unknown	*2000	3.91
May 29	1615	150	2.13				

Minimum discharge, 0.67 ft^3/s Oct. 1, gage height, 0.52 ft.

REVISIONS.--The maximum discharges for some water years and peaks for water year 1983 have been revised, as shown in the following table. They supersede figures published in the reports for those years.

Water year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1975	July 20, 1975	-	239	2.85	1983	Apr. 3, 1983	0900	91	1.89
1979	July 20, 1979	-	520	2.85	1983	Apr. 10, 1983	1215	141	2.10
1980	Mar. 21, 1980	-	467	2.78	1983	Apr. 16, 1983	0600	236	2.37
1981	May 11, 1981	-	961	3.29	1983	May 22, 1983	2315	125	2.04
1982	Feb. 3, 1982	-	128	2.05	1983	May 26, 1983	2115	108	1.97
1983	Mar. 27, 1983	2315	138	2.09					

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.84	3.4	5.7	3.0	7.2	13	4.7	14	27	3.1	1.7
2	2.0	.84	2.9	5.5	3.1	6.0	14	4.4	12	7.9	3.0	1.6
3	1.3	.89	3.0	5.3	5.0	5.1	12	7.4	11	5.1	3.0	1.8
4	1.3	.89	11	5.2	20	4.6	18	34	9.2	4.2	2.9	3.4
5	1.6	.84	5.0	5.1	6.9	7.0	86	10	7.8	20	5.0	1.8
6	1.6	.84	8.2	4.9	5.6	10	29	8.0	7.2	22	3.1	1.7
7	1.4	.84	8.4	4.6	4.0	6.6	21	7.1	6.5	125	2.8	1.6
8	1.4	1.1	4.6	4.0	3.4	5.2	17	13	6.1	16	2.6	1.6
9	1.6	1.4	3.9	3.8	3.3	5.3	14	10	5.5	12	2.5	1.6
10	1.5	2.3	3.7	4.0	3.5	5.0	13	7.4	4.9	10	2.8	1.8
11	1.6	6.7	3.3	3.9	8.6	5.2	11	6.8	4.6	15	2.6	1.7
12	3.0	2.6	16	3.6	8.6	4.2	11	8.3	4.2	9.5	2.6	1.6
13	2.3	2.4	41	3.5	5.8	8.7	9.6	7.3	[illegible]	6.5	2.4	1.5
14	2.5	1.9	21	3.7	7.7	31	9.3	7.2	[illegible]	5.6	2.2	1.5
15	1.5	4.4	12	3.4	36	16	13	6.0	3.8	5.1	2.1	1.6
16	1.3	9.8	9.5	3.3	15	14	23	5.6	3.5	6.2	2.0	1.5
17	1.3	2.8	7.8	3.2	12	11	17	5.3	4.2	4.7	2.0	1.5
18	1.3	2.2	6.7	3.2	9.5	10	15	5.0	5.7	7.3	1.9	1.4
19	3.6	2.0	6.2	3.3	7.3	9.0	12	6.0	5.2	4.6	2.0	1.4
20	1.8	2.0	5.1	3.4	6.6	8.0	9.0	12	3.5	4.0	1.9	1.4
21	1.7	7.4	4.4	3.3	5.5	10	7.0	9.5	3.1	13	1.8	1.4
22	1.6	2.1	29	3.7	4.8	8.3	6.0	5.9	3.0	5.4	1.8	1.3
23	5.6	1.9	14	3.1	4.6	7.0	10	7.2	2.9	4.3	2.7	1.4
24	14	3.5	11	5.3	13	6.4	8.0	5.8	14	3.9	2.0	1.4
25	1.8	12	8.0	8.5	8.2	6.2	7.0	4.7	11	3.5	1.8	1.4
26	1.5	4.8	6.6	6.7	6.9	5.9	5.8	5.7	3.9	3.3	1.8	1.4
27	1.2	3.2	6.2	7.1	5.8	5.5	5.5	5.0	3.3	9.6	1.7	1.3
28	1.0	7.7	33	4.5	12	9.2	5.4	7.7	3.0	4.4	1.7	1.7
29	.95	14	18	3.7	9.6	9.1	5.3	41	2.9	3.7	1.8	1.6
30	.93	4.6	10	3.5	---	8.0	5.2	39	4.1	3.5	1.8	1.5
31	.91	---	6.5	3.4	---	10	---	19	---	3.3	2.1	---
TOTAL	66.39	108.78	329.4	135.4	245.3	264.7	432.1	326.0	178.7	375.6	73.5	48.1
MEAN	2.14	3.63	10.6	4.37	8.46	8.54	14.4	10.5	5.96	12.1	2.37	1.60
MAX	14	14	41	8.5	36	31	86	41	14	125	5.0	3.4
MIN	.91	.84	2.9	3.1	3.0	4.2	5.2	4.4	2.9	3.3	1.7	1.3
CFSM	.98	1.67	4.86	2.00	3.88	3.92	6.61	4.82	2.73	5.55	1.09	.73
IN.	1.13	1.86	5.62	2.31	4.19	4.52	7.37	5.56	3.05	6.41	1.25	.82

CAL YR 1983 TOTAL 1892.55 MEAN 5.19 MAX 69 MIN .34 CFSM 2.38 IN. 32.29
WTR YR 1984 TOTAL 2583.97 MEAN 7.06 MAX 125 MIN .84 CFSM 3.24 IN. 44.09

01399525 LAMINGTON (BLACK) RIVER TRIBUTARY NO. 2 NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°41'40", long 74°43'05", Somerset County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on Black River Road, 1.3 mi south of Pottersville, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--1.22 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and wooden control. Datum of gage is 172.74 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--7 years, 2.46 ft^3/s, 27.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 955 ft^3/s July 7, 1984, gage height, 6.30 ft, from floodmark, from rating extended above 400 ft^3/s on basis of contracted-opening measurement of peak flow; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0615	202	3.25	May 29	1430	353	3.78
Mar. 13	2400	212	3.19	July 7	----	*955	a6.30
Apr. 5	0345	231	3.28				

a From floodmark.
Minimum discharge, 0.03 ft^3/s several days in August and September, gage height 0.43 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.27	1.7	1.3	1.0	2.0	9.8	.49	3.7	16	.23	.06
2	.12	.27	1.4	1.3	1.5	1.7	4.6	.41	2.3	1.5	.30	.04
3	.09	.33	1.7	1.1	2.9	1.5	3.1	3.8	1.8	.36	.31	1.5
4	.08	.39	21	1.0	17	1.3	10	27	1.5	.20	.22	2.2
5	.10	.32	3.0	1.0	3.2	3.3	81	2.9	1.0	9.5	.74	.17
6	.17	.30	15	1.0	2.3	8.5	6.8	1.6	.83	11	.27	.10
7	.14	.29	5.4	.94	1.5	3.3	3.4	1.2	.61	96	.20	.09
8	.13	.23	2.3	.82	1.3	1.8	2.3	6.8	.38	3.1	.19	.08
9	.12	.15	1.9	.67	1.1	1.8	1.7	3.9	.26	1.6	.17	.07
10	.09	.44	1.8	.75	1.1	1.6	1.5	1.8	.21	1.1	.22	.07
11	.08	3.7	1.4	.85	2.7	1.6	1.2	1.2	.18	2.4	.19	.09
12	.27	1.1	24	.77	2.7	1.5	1.0	1.9	.14	1.5	.18	.08
13	.32	.68	62	.79	1.7	10	.92	1.4	.16	.60	.19	.07
14	.87	.54	9.5	.76	2.8	40	.89	1.4	.21	.45	.15	.07
15	.13	3.4	3.2	.66	49	7.9	2.1	.91	.11	.37	.13	.08
16	.10	9.2	2.3	.60	7.5	5.3	14	.72	.08	.49	.09	.08
17	.09	1.4	1.9	.58	4.0	3.9	3.3	.62	.10	.34	.08	.07
18	.10	.92	1.5	.56	3.4	2.9	4.0	.56	.28	.80	.08	.07
19	2.0	.79	1.4	.54	2.8	2.4	2.7	.88	.86	.36	.07	.07
20	.24	.72	1.1	.54	2.5	2.0	1.8	11	.10	.28	.08	.07
21	.17	6.8	.95	.50	1.9	3.3	1.4	4.7	.08	5.7	.06	.06
22	.19	1.4	29	.47	1.6	2.4	1.2	1.3	.06	1.0	.06	.06
23	9.3	1.1	3.1	.48	1.6	1.7	1.8	4.0	.05	.47	.07	.05
24	26	3.0	2.3	.70	12	1.3	1.6	1.8	4.6	.36	.08	.04
25	1.1	21	2.0	1.3	4.4	1.3	1.2	.95	4.6	.27	.06	.05
26	.71	2.9	1.4	3.0	2.9	1.2	.93	1.2	.16	.21	.04	.05
27	.51	1.9	1.3	4.0	2.0	1.0	.79	.85	.10	4.1	.04	.03
28	.39	13	3.5	1.4	8.6	5.0	.69	4.2	.08	.55	.04	.08
29	.36	15	4.1	1.3	4.0	11	.69	54	.07	.35	.04	.09
30	.27	2.3	2.0	1.3	---	11	.64	35	.09	.31	.06	.08
31	.27	---	1.4	1.1	---	18	---	8.6	---	.27	.08	---
TOTAL	44.60	93.84	214.55	32.08	151.0	161.5	167.05	187.09	24.70	161.54	4.72	5.72
MEAN	1.44	3.13	6.92	1.03	5.21	5.21	5.57	6.04	.82	5.21	.15	.19
MAX	26	21	62	4.0	49	40	81	54	4.6	96	.74	2.2
MIN	.08	.15	.95	.47	1.0	1.0	.64	.41	.05	.20	.04	.03
CFSM	1.18	2.57	5.67	.84	4.27	4.27	4.57	4.95	.67	4.27	.12	.16
IN.	1.36	2.86	6.54	.98	4.60	4.92	5.09	5.70	.75	4.93	.14	.17

CAL YR 1983 TOTAL 1018.92 MEAN 2.79 MAX 80 MIN .00 CFSM 2.29 IN. 31.07
WTR YR 1984 TOTAL 1248.39 MEAN 3.41 MAX 96 MIN .03 CFSM 2.80 IN. 38.07

01399690 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'24", long 74°46'01", Hunterdon County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on U.S. Route 22, 0.6 mi north of Whitehouse Station, 0.9 mi west of Whitehouse, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--13.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1964-67. March 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 113.52 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Oct. 22 to Nov. 2, Mar. 31 to Apr. 27 and those for winter periods, which are poor. Releases from Round Valley Reservoir enter stream 1,700 ft upstream of gage (see Raritan River basin, reservoirs in).

AVERAGE DISCHARGE.--7 years, 40.0 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,190 ft^3/s July 7, 1984, gage height, 15.89 ft; minimum, 0.42 ft^3/s Sept. 22, 1981, gage height, 4.34 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft^3/s July 7, gage height, 15.89 ft; minimum, 0.33 ft^3/s Oct. 21, gage height, 4.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.0	20	39	12	29	103	18	63	215	12	8.1
2	7.6	5.0	15	31	11	23	95	17	47	45	13	7.6
3	4.5	5.0	16	27	13	20	87	25	39	26	12	7.7
4	2.9	5.2	140	23	133	17	220	185	34	21	12	14
5	5.0	4.5	56	21	42	28	600	44	29	15	21	8.7
6	6.1	4.5	63	20	28	69	210	31	26	43	14	7.6
7	2.8	4.3	86	20	17	34	120	27	23	550	12	7.1
8	2.6	4.1	26	17	13	22	90	51	21	52	12	7.1
9	2.7	4.1	19	14	11	22	68	58	19	36	11	7.1
10	2.6	27	16	14	10	21	54	30	18	30	11	7.7
11	2.5	70	13	16	24	19	43	26	17	87	11	8.7
12	11	18	134	13	40	18	36	30	15	124	11	7.3
13	11	8.8	386	13	22	37	31	28	16	179	11	7.1
14	18	7.5	158	12	32	260	27	25	17	177	10	7.3
15	5.9	31	70	12	250	93	40	22	15	176	9.8	7.8
16	3.2	131	46	11	101	72	96	20	14	178	9.7	7.3
17	2.9	18	33	11	53	56	62	18	15	174	9.5	7.0
18	64	9.8	26	10	44	44	47	17	22	97	9.2	6.8
19	90	7.8	23	9.9	34	38	43	19	27	16	9.3	4.2
20	1.4	6.8	18	9.8	29	32	42	45	15	15	9.5	4.2
21	9.9	72	17	8.8	23	38	32	89	14	56	8.7	4.0
22	13	13	188	8.0	20	35	25	26	13	22	8.6	4.0
23	21	8.4	67	8.2	19	27	29	33	13	17	10	4.3
24	180	19	40	10	99	22	32	29	23	16	9.0	4.6
25	45	176	29	50	42	22	29	20	87	14	8.4	4.6
26	11	48	26	41	28	21	26	23	18	13	8.2	5.0
27	7.5	20	26	25	22	18	24	25	16	41	8.1	5.1
28	6.4	59	40	22	96	52	21	27	15	18	8.8	12
29	5.6	162	88	14	55	109	20	303	14	15	8.0	8.0
30	5.2	35	39	12	---	110	20	299	16	14	8.4	8.2
31	5.0	---	39	14	---	110	---	118	---	13	10	---
TOTAL	562.3	989.8	1963	556.7	1323	1518	2372	1738	721	2495	326.2	210.2
MEAN	18.1	33.0	63.3	18.0	45.6	49.0	79.1	56.1	24.0	80.5	10.5	7.01
MAX	180	176	386	50	250	260	600	303	87	550	21	14
MIN	1.4	4.1	13	8.0	10	17	20	17	13	13	8.0	4.0

CAL YR 1983 TOTAL 11579.2 MEAN 31.7 MAX 509 MIN 1.4
WTR YR 1984 TOTAL 14775.2 MEAN 40.4 MAX 600 MIN 1.4

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'49", long 74°44'11", Hunterdon County, Hydrologic Unit 02030105, on right bank at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--37.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-62, 1964-65, 1973. April 1977 to September, 1984 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 99.64 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Releases are made from Round Valley Reservoir to South Branch Rockaway Creek, 2.6 mi upstream of gage (see Raritan River basin, reservoirs in).

AVERAGE DISCHARGE.--7 years, 87.3 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,600 ft³/s July 7, 1984, gage height, 11.33 ft; minimum, 0.90 ft³/s Dec. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1945	1520	5.85	May 4	0430	1480	5.78
Dec. 22	1600	1740	5.29	May 29	1945	2080	6.89
Dec. 28	2145	1990	5.74	May 30	0730	1420	5.65
Feb. 4	0245	1220	5.22	July 1	1630	1780	6.35
Mar. 14	0300	1600	6.01	July 7	0600	*4600	11.33
Apr. 5	0845	2400	7.48				

Minimum discharge, 8.8 ft³/s Oct. 8, 10, 11, gage height, 1.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	62	98	62	80	242	67	220	535	40	20
2	15	16	52	69	57	74	211	60	164	121	39	19
3	14	16	53	63	57	64	183	64	138	69	38	20
4	10	17	311	61	361	60	221	589	121	56	37	49
5	11	15	111	59	91	78	1570	140	100	63	62	26
6	15	15	126	58	65	166	466	101	90	326	43	20
7	9.9	14	187	55	50	94	281	90	83	1580	37	19
8	9.0	14	72	50	45	70	209	150	76	255	35	18
9	9.2	14	61	56	53	70	169	176	70	168	32	18
10	9.1	36	57	47	43	67	148	95	64	136	37	19
11	8.9	119	50	52	74	70	131	85	60	206	34	24
12	21	47	338	64	116	58	117	92	57	251	32	19
13	24	28	1010	68	72	78	106	95	54	298	34	17
14	31	24	422	70	90	741	99	86	57	285	30	17
15	15	51	172	56	688	233	146	74	55	278	28	18
16	11	277	126	52	216	201	358	70	51	287	26	18
17	11	54	100	50	126	167	164	64	48	273	25	17
18	26	37	85	48	108	131	135	61	52	199	23	16
19	68	32	78	48	92	115	143	64	84	65	23	16
20	22	28	69	46	85	102	116	99	55	53	24	16
21	34	138	84	44	74	111	99	269	46	198	22	15
22	63	46	547	42	65	131	89	84	42	81	21	15
23	62	36	159	49	63	95	108	94	41	58	28	15
24	353	49	105	68	218	78	119	96	51	53	26	15
25	46	352	100	105	102	77	93	68	276	47	21	15
26	29	98	90	132	80	76	82	68	52	43	20	15
27	23	66	180	112	68	70	76	83	42	136	20	14
28	19	116	612	95	209	121	73	87	38	63	21	20
29	18	367	262	78	130	237	72	834	36	50	21	19
30	16	82	107	73	---	237	69	984	40	45	21	16
31	16	---	112	77	---	283	---	392	---	43	27	---
TOTAL	1031.1	2220	5900	2045	3560	4235	6095	5381	2363	6321	927	565
MEAN	33.3	74.0	190	66.0	123	137	203	174	78.8	204	29.9	18.8
MAX	353	367	1010	132	688	741	1570	984	276	1580	62	49
MIN	8.9	14	50	42	43	58	69	60	36	43	20	14

CAL YR 1983 TOTAL 32343.5 MEAN 88.6 MAX 1460 MIN 6.0
WTR YR 1984 TOTAL 40643.1 MEAN 111 MAX 1580 MIN 8.9

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1977 to September 1978.
WATER TEMPERATURES: April 1977 to September 1978.
SEDIMENT ANALYSES: October 1976 to September 1978.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
06...	1000	16	243	8.1	17.0	9.3	--	E2.2	630	920
FEB										
01...	1030	39	261	7.8	.0	14.2	--	E1.5	40	79
MAR										
26...	1030	77	161	8.6	6.0	14.6	--	E2.3	<20	12
MAY										
24...	0930	94	154	7.8	15.5	9.7	97	E2.3	1300	540
JUL										
25...	1030	48	204	8.2	20.0	9.2	102	E1.3	790	350
AUG										
13...	1000	35	209	8.1	22.0	8.5	98	E1.6	490	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
06...	99	24	9.5	8.8	1.7	77	22	12	<.10
FEB									
01...	82	20	7.7	15	1.6	53	23	26	<.10
MAR									
26...	59	14	5.8	7.0	1.1	38	19	11	<.10
MAY									
24...	56	14	5.2	6.3	1.3	41	19	8.5	<.10
JUL									
25...	73	18	6.9	6.6	1.5	54	20	9.9	<.10
AUG									
13...	82	20	7.9	7.1	1.5	61	18	9.3	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
06...	13	140	.039	1.1	<.050	.25	1.3	.060	3.3
FEB									
01...	14	164	.016	1.8	.060	.08	1.8	.080	1.5
MAR									
26...	13	101	.007	1.1	.110	.20	1.3	.030	1.4
MAY									
24...	12	107	.014	.88	.180	.37	1.3	.100	3.2
JUL									
25...	14	145	.014	1.3	.110	.23	1.6	.080	2.0
AUG									
13...	14	107	.015	1.5	<.050	.19	1.7	.090	1.7

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
OCT										
06...	1000	680	<.1	2.1	<1	1	8	<10	<10	6100

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
06...	<10	210	<.01	<10	<1	20	<1	<1.0	<.1	<1.0

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT										
06...	.2	.3	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
06...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01399780 LAMINGTON (BLACK) RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'04", long 74°41'13", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 1,400 ft upstream from mouth, and 2.4 mi southwest of Greater Cross Roads.

DRAINAGE AREA.--100 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 05...	1320	E41	240	7.3	18.0	12.0	--	E2.1	170	94
FEB 08...	1040	E198	235	7.3	.0	15.0	--	E1.9	11	49
APR 18...	0950	E606	172	7.2	12.0	10.4	--	E2.1	230	130
MAY 24...	1115	E253	166	7.7	17.0	10.3	106	2.4	790	350
JUL 24...	1315	E245	185	8.0	22.0	9.1	104	<1.0	790	540
AUG 13...	1300	E114	207	8.6	23.0	10.1	118	E1.5	330	920

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	92	22	9.1	16	1.9	69	22	19	.10
FEB 08...	63	15	6.3	18	1.5	40	19	28	<.10
APR 18...	49	12	4.7	9.6	1.3	34	18	15	<.10
MAY 24...	57	14	5.3	8.6	1.2	42	17	13	.10
JUL 24...	62	15	6.0	9.2	1.3	49	14	13	<.10
AUG 13...	75	18	7.2	11	1.3	59	16	15	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	9.6	141	.008	.71	<.050	.51	1.2	.070	4.1
FEB 08...	12	146	.010	1.3	.070	.50	1.8	.060	3.2
APR 18...	8.6	103	.013	.73	.140	.48	1.2	.040	2.9
MAY 24...	10	131	.012	.72	.090	.37	1.1	.090	3.5
JUL 24...	13	122	.007	.78	<.050	.33	1.1	.070	3.8
AUG 13...	13	127	.007	.99	<.050	.25	1.2	.070	2.7

01399780 LAMINGTON (BLACK) RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
OCT										
05...	1320	660	<.1	2.0	<1	1	<1	<10	<10	<10

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
05...	<10	5	<.01	<10	<1	<1	<1	<1.0	<.1	<1.0

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT										
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ

LOCATION.--Lat 40°34'10", long 74°40'45", Somerset County, Hydrologic Unit 02030105, on right bank, 400 ft upstream from U.S. Highway 202, 1.4 mi upstream from confluence with South Branch, and 2.7 mi west of Raritan.

DRAINAGE AREA.--190 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1923 to current year. Monthly discharge only for June 1923, published in WSP 1302. Prior to October 1943, published as "at Milltown".

REVISED RECORDS.--WSP 1552: 1924-26, 1928-35. WDR NJ-79-1: 1971-78(P).

GAGE.--Water-stage recorder. Concrete control since Sept. 1, 1936. Datum of gage is 50.43 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft downstream at same datum.

REMARKS.--Water-discharge records good except for periods of no gage-height record, Oct. 12 to 17, July 7 to 10, Aug. 24 to Sept. 10, which are fair. Some regulation by Round Valley Reservoir.

AVERAGE DISCHARGE.--61 years, 310 ft^3/s unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft^3/s Aug. 28, 1971, gage height, 15.47 ft, from high-water mark in gage house, from rating curve extended above 15,000 ft^3/s; minimum observed, about 3 ft^3/s Nov. 28, 1930, gage height, 1.72 ft result of freezeup, minimum daily, 7.5 ft^3/s Sept. 26, 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	1930	6570	8.54	Apr. 5	1345	11900	10.79
Dec. 22	1900	5070	7.68	May 30	0015	9600	9.92
Dec. 28	2215	6550	8.53	July 7	Unknown	*27900	15.30
Feb. 15	1500	5840	8.16				

Minimum discharge, 41 ft^3/s Oct. 10, 11, gage height, 2.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	85	383	517	190	499	1280	334	1290	1070	233	115
2	103	80	318	392	175	433	1070	305	1010	722	234	100
3	79	78	309	332	232	388	922	303	833	318	266	100
4	57	80	1410	318	1710	355	909	2280	725	265	210	700
5	63	73	741	310	697	423	8040	869	601	234	301	340
6	76	69	615	301	545	977	2670	628	528	1310	265	120
7	58	70	1180	288	394	593	1590	534	476	15300	200	80
8	48	69	505	272	312	452	1220	727	422	6100	192	72
9	45	68	400	309	308	439	1010	1070	368	2100	175	87
10	43	99	360	241	302	380	874	582	330	820	184	97
11	42	519	308	302	391	369	772	508	302	846	183	125
12	58	301	1180	252	709	334	685	500	274	1110	173	106
13	130	154	4640	264	477	396	617	592	265	782	228	92
14	170	124	2750	284	545	3050	571	507	284	700	170	91
15	110	149	1060	249	3380	1260	749	419	242	645	157	92
16	72	1200	819	170	1370	1060	1550	384	220	672	141	91
17	58	327	671	270	865	940	969	351	208	609	141	83
18	57	207	550	268	712	744	790	329	288	627	128	79
19	238	170	489	296	592	656	852	344	370	411	122	76
20	134	151	399	174	529	580	681	397	221	322	127	77
21	87	713	368	217	447	617	584	1250	193	1080	116	75
22	114	300	2180	227	382	717	514	454	174	612	110	70
23	152	207	1030	366	357	531	548	440	162	400	128	70
24	1700	235	611	456	1170	467	606	543	174	337	129	70
25	341	1480	726	816	679	432	499	354	1010	289	115	71
26	199	642	978	795	569	408	441	336	304	250	115	69
27	164	413	793	654	466	381	400	423	246	801	95	66
28	139	472	1820	555	896	627	375	437	222	438	80	86
29	120	1540	2000	344	798	1340	368	3320	198	316	80	89
30	100	532	614	282	---	1350	348	6600	193	278	90	77
31	90	---	598	270	---	1530	---	2110	---	261	100	---
TOTAL	4904	10607	30805	10791	20199	22728	32504	28230	12133	40025	4988	3466
MEAN	158	354	994	348	697	733	1083	911	404	1291	161	116
MAX	1700	1540	4640	816	3380	3050	8040	6600	1290	15300	301	700
MIN	42	68	308	170	175	334	348	303	162	234	80	66

CAL YR 1983	TOTAL	168425	MEAN	461	MAX	7310	MIN	33
WTR YR 1984	TOTAL	221380	MEAN	605	MAX	15300	MIN	42

01400120 RARITAN RIVER AT RARITAN, NJ

LOCATION.--Lat 40°33'52", long 74°38'10", Somerset County, Hydrologic Unit 02030105, at bridge on South Branch-Raritan Road in Raritan, 1.7 mi upstream from Peters Brook, 3.5 mi northeast of South Branch, and 3.6 mi southeast of North Branch.

DRAINAGE AREA.--474 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 06...	1330	E251	208	8.1	20.0	8.5	94	1.0	1100	50
JAN 31...	1200	E424	273	7.7	.0	14.3	97	.9	200	<200
MAR 15...	1200	E2510	171	7.5	3.5	13.5	99	1.2	110	9
MAY 22...	1045	E934	155	7.7	19.0	--	--	1.7	2400	230
JUL 10...	1030	E1430	154	7.9	19.0	9.2	98	1.4	1100	790
AUG 27...	1000	E269	238	8.3	23.0	8.4	96	1.2	230	170

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	85	21	7.8	12	1.8	60	27	16	.10
JAN 31...	77	19	7.1	20	1.6	44	25	39	<.10
MAR 15...	48	12	4.5	13	1.4	24	17	22	<.10
MAY 22...	56	14	5.2	8.2	1.3	37	18	13	<.10
JUL 10...	53	13	5.1	7.4	1.4	36	19	11	<.10
AUG 27...	85	21	8.0	11	1.5	63	25	18	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	5.5	132	.014	.68	<.050	2.0	2.6	.150	3.3
JAN 31...	11	181	.024	1.8	<.050	.37	2.1	.200	1.7
MAR 15...	8.7	107	.011	1.5	.160	.59	2.1	.100	3.0
MAY 22...	8.8	112	.021	.84	<.050	.38	1.2	.120	3.0
JUL 10...	11	117	.011	1.2	.070	.49	1.7	.110	3.5
AUG 27...	9.6	143	.008	1.0	.130	.36	1.4	.100	2.0

01400120 RARITAN RIVER AT RARITAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
22...	1045	<.5	100	<1	<10	40	1	20	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
22...	530	7	50	<.1	3	<1	30	<1

01400300 PETERS BROOK NEAR RARITAN, NJ

LOCATION.--Lat 40°35'35", long 74°40'00", Somerset County, Hydrologic Unit 02030105, on left bank 12 ft upstream from bridge on Garretson Road, 1.5 mi north of Raritan, and 2.5 mi from mouth.

DRAINAGE AREA.--4.19 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORDS.--May 1978 to current year.

REVISED RECORD.--WDR NJ-79-1: 1978(P).

GAGE.--Water-stage recorder. Datum of gage is 68.713 ft National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair. No gage-height record Sept. 5-12.

AVERAGE DISCHARGE.--6 years, 6.51 ft³/s, 21.10 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft³/s July 7, 1984, gage height, 8.15 ft; no flow part or all of some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 22	1210	560	5.72	May 30	0455	685	6.34
Apr. 5	0655	613	5.99	July 7	0450	*1090	8.15

Minimum discharge, 0.04 ft³/s Oct. 1, 18, 19, gage height, 1.63 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.10	2.0	1.5	1.4	2.5	13	.35	10	5.5	.59	.11
2	7.7	.09	1.0	1.5	.72	1.3	7.5	.28	8.0	1.7	.49	.10
3	.82	.11	3.4	1.1	4.3	.94	5.0	2.1	6.8	.42	.46	.38
4	.13	.29	95	1.1	37	.75	27	24	6.0	.29	1.6	2.8
5	3.6	.11	7.9	1.1	8.4	7.0	249	5.4	5.2	.95	3.8	.23
6	1.8	.08	30	1.1	7.5	14	12	2.7	4.6	6.0	.90	.17
7	.32	.08	11	1.3	3.8	5.4	7.7	1.8	3.8	235	.42	.14
8	.22	.11	4.6	.94	1.8	2.6	5.2	20	2.9	6.9	.42	.14
9	.18	.08	3.2	.73	1.2	2.3	3.8	9.8	2.2	4.2	.40	.13
10	.15	8.0	3.0	3.0	3.2	1.7	2.8	3.0	1.5	3.2	.36	.13
11	.15	8.0	2.1	4.3	8.5	1.7	2.0	1.6	1.0	3.1	.27	.19
12	2.8	2.2	61	1.3	11	1.1	1.3	4.8	.73	2.5	.36	.13
13	1.0	.59	219	.89	6.1	26	.93	3.2	.80	1.2	.30	.08
14	4.7	.37	32	1.1	9.2	79	1.2	3.1	2.5	.79	.23	.08
15	.26	27	7.8	.96	134	12	8.3	.77	.54	.76	.19	.10
16	.11	44	5.9	.77	11	8.7	45	.55	.37	2.9	.91	.10
17	.07	3.4	4.8	.66	6.4	6.1	7.7	.40	1.2	1.0	.72	.11
18	.05	1.0	3.9	.67	5.3	4.2	4.9	.35	4.8	5.7	.11	.11
19	9.6	.59	3.6	.79	4.1	3.2	3.6	1.0	21	1.8	.14	.09
20	.56	.46	2.8	.59	3.3	2.4	2.9	33	1.8	.71	.11	.11
21	.17	40	2.4	.50	2.2	5.5	1.7	30	.79	34	.11	.07
22	.11	3.1	108	.44	1.3	4.6	.95	2.5	.50	4.8	.09	.06
23	31	1.1	9.6	.48	1.5	2.6	4.3	5.6	.40	2.0	1.8	.07
24	78	4.6	6.1	4.6	24	1.2	4.1	3.7	15	1.1	.18	.08
25	3.3	62	4.2	13	6.2	1.0	1.6	.79	21	.74	.13	.08
26	.86	6.3	3.2	9.8	3.7	.88	.79	4.1	2.1	.52	.11	.08
27	.48	3.0	3.0	9.6	2.2	.65	.60	2.3	.82	32	.11	.08
28	.27	16	78	6.5	14	19	.51	12	.41	3.7	.10	1.0
29	.16	23	9.7	3.4	6.2	61	.52	166	.36	1.7	.11	.13
30	.12	4.2	4.5	2.4	---	33	.49	191	2.8	1.0	.11	.09
31	.12	---	2.7	2.9	---	51	---	31	---	.74	.14	---
TOTAL	149.06	259.96	735.4	79.02	329.52	363.32	426.39	567.19	129.92	366.92	15.77	7.17
MEAN	4.81	8.67	23.7	2.55	11.4	11.7	14.2	18.3	4.33	11.8	.51	.24
MAX	78	62	219	13	134	79	249	191	21	235	3.8	2.8
MIN	.05	.08	1.0	.44	.72	.65	.49	.28	.36	.29	.09	.06
CFSM	1.15	2.07	5.66	.61	2.72	2.79	3.39	4.37	1.03	2.82	.12	.06
IN.	1.32	2.31	6.53	.70	2.93	3.23	3.79	5.04	1.15	3.26	.14	.06

CAL YR 1983 TOTAL 3262.93 MEAN 8.94 MAX 223 MIN .01 CFSM 2.13 IN. 28.97
WTR YR 1984 TOTAL 3429.64 MEAN 9.37 MAX 249 MIN .05 CFSM 2.24 IN. 30.45

01400350 MACS BROOK AT SOMERVILLE, NJ

LOCATION.--Lat 40°34'26", long 74°37'06", Somerset County, Hydrologic Unit 02030105, on left upstream wingwall of culvert under access road from U.S. Highway 22 west to U.S. Highways 202 and 206, 1,200 ft upstream from Peters Brook, and 0.4 mi north of Somerville.

DRAINAGE AREA.--0.77 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 58.37 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 0.5 ft³/s, which are fair, and those for December, January and periods of no gage-height record, Oct. 2 to 4 and Jan. 22 to Feb. 13, which are poor.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 455 ft³/s May. 30, 1984, gage height 4.28 ft; no flow part or all of many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 5	0500	165	3.02	July 7	0715	448	4.25
May 29	1555	253	3.43	July 21	1015	207	3.23
May 30	0405	*455	4.28				

No flow part or all of Sept. 26, 27, 28, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.09	.51	.85	.40	.88	3.3	.67	1.3	.66	.10	.04
2	1.9	.09	.38	.58	.32	.78	1.5	.65	1.0	.18	.10	.05
3	.12	.10	.79	.45	.70	.68	1.1	1.2	.91	.13	.10	.20
4	.04	.11	14	.30	3.0	.68	7.9	6.2	.81	.12	.24	.21
5	.34	.11	1.7	.25	10	2.7	54	1.2	.75	.23	.33	.04
6	.06	.11	6.3	.22	2.5	4.3	3.2	.79	.75	.64	.10	.04
7	.03	.11	2.8	.20	.90	1.2	1.5	.68	.68	63	.09	.04
8	.03	.11	.78	.18	.45	.87	1.1	3.9	.68	.89	.08	.04
9	.03	.12	.53	.16	.37	.84	1.1	2.1	.64	.64	.07	.04
10	.02	2.0	.48	1.1	.90	.87	.91	.84	.58	.50	.07	.12
11	.03	1.4	.36	.85	1.5	.84	.91	.74	.50	.56	.07	.04
12	.70	.39	13	.50	3.0	.79	.81	1.3	.47	.40	.10	.03
13	.25	.16	37	.32	1.1	6.8	.79	.87	.49	.26	.06	.03
14	.51	.13	8.4	.38	4.0	16	.83	.92	.53	.23	.05	.04
15	.05	4.2	1.6	.35	30	3.3	2.2	.68	.35	.18	.05	.06
16	.04	6.9	.96	.35	3.0	2.0	11	.68	.33	.36	.04	.06
17	.04	.67	.70	.34	1.3	1.3	1.7	.63	.45	.24	.04	.04
18	.04	.30	.58	.33	1.1	1.1	1.1	.58	.62	.80	.04	.04
19	1.5	.19	.52	.32	.94	.91	.92	.69	2.5	.31	.04	.04
20	.09	.17	.39	.30	.89	.87	.89	4.4	.35	.18	.05	.05
21	.06	7.9	.39	.29	.79	1.8	.81	3.6	.24	8.4	.04	.04
22	.04	.68	22	.28	.73	1.2	.79	.81	.18	.73	.05	.04
23	3.0	.35	2.1	.50	.92	.93	1.2	.84	.17	.36	.25	.04
24	6.0	1.2	.93	1.5	5.9	.79	1.0	.70	1.4	.26	.04	.04
25	.37	13	.79	3.6	1.4	.79	.81	.63	1.2	.16	.03	.04
26	.15	1.4	.79	1.7	.96	.78	.76	1.2	.26	.14	.03	.02
27	.11	.64	.79	1.6	.79	.68	.68	.70	.16	4.4	.04	.00
28	.11	3.9	9.8	1.3	5.9	6.5	.68	2.6	.16	.33	.04	.12
29	.10	4.7	2.9	.65	1.6	19	.68	33	.15	.15	.05	.02
30	.09	.88	1.0	.35	---	11	.68	51	.25	.12	.05	.02
31	.09	---	1.1	.52	---	10	---	7.3	---	.11	.06	---
TOTAL	16.01	52.11	134.37	20.62	85.36	101.18	104.85	132.10	18.86	85.67	2.50	1.63
MEAN	.52	1.74	4.33	.67	2.94	3.26	3.49	4.26	.63	2.76	.08	.05
MAX	6.0	13	37	3.6	30	19	54	51	2.5	63	.33	.21
MIN	.02	- .09	.36	.16	.32	.68	.68	.58	.15	.11	.03	.00
CFSM	.68	2.26	5.62	.87	3.82	4.23	4.53	5.53	.82	3.58	.11	.07
IN.	.77	2.52	6.49	1.00	4.12	4.89	5.07	6.38	.91	4.14	.12	.08

CAL YR 1983 TOTAL 744.10 MEAN 2.04 MAX 46 MIN .00 CFSM 2.65 IN. 35.95
WTR YR 1984 TOTAL 755.26 MEAN 2.06 MAX 63 MIN .00 CFSM 2.68 IN. 36.49

01400500 RARITAN RIVER AT MANVILLE, NJ

LOCATION.--Lat 40°33'18", long 74°35'02", Somerset County, Hydrologic Unit 02030105, on left bank at downstream side of bridge on North Main Street (Finderive Avenue) at Manville, and 1.4 mi upstream from Millstone River.

DRAINAGE AREA.--490 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to March 1907 (published as "at Finderne"), August 1908 to April 1915 (gage heights only, published in WSP 521), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1552: 1904, 1906, 1922, 1923(M), 1924-25, 1926-29(M), 1930, 1932-33(M), 1924-54. WDR NJ-75-1: 1964(M), 1969(M), 1970(P), 1972(P), 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 15, 1923, nonrecording gage on downstream side of highway bridge at same site and datum. From Oct. 1, 1952 to Sept. 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (station 01403000) used as auxiliary gage when stage is above 5.0 ft. Since Oct. 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved downstream to present site (station 01403060). Between June 9, 1978 and June 7, 1979, gage temporarily relocated at site 1.4 mi downstream, just upstream of Millstone River, because of reconstruction of highway bridge.

REMARKS.--Water-discharge records fair except those over 3,000 ft³/s, which are poor. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River Basin, reservoirs in). Diversion to Round Valley Reservoir (see Raritan River Basin, diversions). Water diverted 1,500 ft upstream from station by Johns-Manville Corporation and returned to river 600 ft downstream from Millstone River (see Raritan River Basin, diversions).

AVERAGE DISCHARGE.--66 years, (water years 1904-06, 1922-84), 770 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,300 ft³/s Aug. 28, 1971, gage height, 23.8 ft, from floodmark (backwater from Millstone River), from rating curve extended above 14,000 ft³/s on basis of slope-area measurements at gage heights, 14.9 and 20.42 ft; minimum daily discharge, 17 ft³/s Sept. 19, 1964 (does not include water diverted to Johns-Manville Plant).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0515	14900	15.72	May 30	1700	18800	16.78
Apr. 5	1915	20500	17.50	July 7	1745	*27300	19.95

Minimum discharge, 171 ft³/s Oct. 17, gage height, 3.96 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321	241	946	871	660	1290	3900	729	4440	1810	579	295
2	378	235	725	806	630	1010	2790	676	2600	2050	545	283
3	308	242	667	678	570	894	2320	608	1980	828	593	321
4	239	236	3070	626	2780	781	2090	4040	1730	632	527	549
5	270	218	2730	597	1810	832	13500	2620	1430	545	757	513
6	318	211	1510	575	1150	1780	12300	1590	1200	2850	840	309
7	257	230	2900	533	880	1380	4520	1280	1070	14800	566	282
8	230	227	1300	410	540	1100	2880	1450	932	9310	570	292
9	204	224	927	385	525	1020	2290	2390	830	2600	476	266
10	245	289	791	436	568	901	2050	1460	751	1870	447	282
11	261	1160	630	587	740	854	1770	1180	682	1660	453	329
12	304	854	2050	415	1540	780	1570	1020	626	2360	425	304
13	313	466	9240	530	1190	845	1400	1230	583	1600	476	282
14	348	354	12300	493	1180	6550	1280	1080	631	1290	429	297
15	264	354	3840	422	6370	4380	1560	906	564	1120	380	321
16	202	3290	2040	392	4760	2960	3200	809	489	1120	354	305
17	196	1160	1510	602	2180	2430	2680	730	468	1130	336	274
18	236	620	1180	536	1710	1880	1810	673	617	1190	346	261
19	478	466	1030	499	1430	1640	1960	690	990	1310	307	262
20	444	349	877	543	1270	1450	1940	790	601	777	329	271
21	260	1570	688	567	1080	1440	1530	2680	481	1870	341	278
22	248	899	3760	521	926	1670	1230	1250	422	1500	298	275
23	324	532	4190	579	836	1310	1260	920	433	877	379	298
24	3460	475	1540	484	2430	1150	1540	1310	461	734	389	289
25	1230	3180	1030	1250	1720	1040	1240	844	2360	654	321	294
26	550	2250	1560	1920	1340	996	1030	739	895	566	313	280
27	417	1040	1370	1410	1050	930	952	1050	575	1920	320	260
28	346	894	2120	1290	1940	1240	866	897	489	1460	331	328
29	295	3670	5090	673	2220	3290	853	4180	442	860	311	311
30	251	1580	1350	519	---	4150	805	16600	441	702	307	292
31	240	---	920	526	---	4200	---	10800	---	639	322	---
TOTAL	13437	27516	73881	20675	46025	56173	79116	67221	30213	62634	13367	9203
MEAN	433	917	2383	667	1587	1812	2637	2168	1007	2020	431	307
MAX	3460	3670	12300	1920	6370	6550	13500	16600	4440	14800	840	549
MIN	196	211	630	385	525	780	805	608	422	545	298	260

CAL YR 1983	TOTAL	442569	MEAN	1213	MAX	12500	MIN	196
WTR YR 1984	TOTAL	499461	MEAN	1365	MAX	16600	MIN	196

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1959, 1962-73, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 06...	1215	312	220	8.7	20.0	10.1	111	.5	130	79
FEB 06...	1100	1020	212	7.2	1.0	13.3	93	2.9	350	>2400
MAR 20...	1200	1450	181	7.7	6.5	12.1	97	1.0	33	7
MAY 31...	1130	10500	124	7.2	14.0	9.6	93	1.6	9200	240
JUL 16...	1200	1060	195	7.9	24.0	8.5	101	1.6	2200	1100
AUG 28...	1100	329	237	8.4	24.0	10.4	122	.7	20	130

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	89	22	8.3	13	1.7	64	27	17	.10
FEB 06...	56	14	5.2	18	1.9	31	20	33	<.10
MAR 20...	61	15	5.7	11	1.2	35	21	20	<.10
MAY 31...	44	11	4.0	6.0	1.6	28	15	8.1	.10
JUL 16...	68	17	6.3	9.0	1.5	48	20	14	.10
AUG 28...	85	21	7.9	11	1.7	61	28	17	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	5.7	133	.012	.71	<.050	.37	1.1	.110	3.7
FEB 06...	8.8	130	.024	1.5	.470	1.3	2.7	.120	3.5
MAR 20...	9.8	114	.010	1.5	E.600	E.61	--	.040	2.0
MAY 31...	9.1	89	.023	1.1	<.050	.85	2.0	.160	4.0
JUL 16...	9.9	134	.011	.87	.140	.55	1.4	.090	4.2
AUG 28...	9.3	160	.008	.89	.060	.39	1.3	.080	2.1

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
06...	1215	<.5	10	2	<10	60	1	10	<10
MAY									
31...	1130	--	120	2	<10	40	<1	20	11

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
06...	280	2	10	<.1	2	<1	10	2
MAY								
31...	1700	6	100	.3	5	<1	20	<1

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ

LOCATION.--Lat 40°15'44", long 74°25'13", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 33, 1.3 mi west of Manalapan, 5.5 mi east of Hightstown, and 8.4 mi above Rocky Brook.

DRAINAGE AREA.--7.37 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to 1964, June 1981 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 01...	1140	10	136	6.3	1.0	14.2	--	4.1	<20	17
MAR 22...	0915	17	--	6.1	5.0	11.8	--	<.9	<20	13
MAY 29...	0940	41	91	6.0	15.0	7.8	--	2.6	9200	>2400
JUL 19...	0930	11	106	6.5	19.0	8.3	89	E1.4	70	920
AUG 06...	1250	12	92	6.4	21.5	7.5	85	E2.0	3500	>2400
SEP 26...	1340	2.5	95	6.3	18.0	9.1	96	E1.9	2400	2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 01...	30	6.1	3.7	8.6	2.3	9.0	18	17	.10
MAR 22...	30	6.2	3.5	6.4	1.9	4.0	19	14	.10
MAY 29...	21	4.8	2.3	3.7	1.9	7.0	13	7.2	.20
JUL 19...	29	6.1	3.4	4.8	2.2	14	15	9.6	.20
AUG 06...	24	5.4	2.6	3.9	2.5	9.0	14	9.2	.20
SEP 26...	30	6.0	3.6	5.0	2.5	16	9.5	9.5	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 01...	8.0	94	.017	2.1	.090	.53	2.6	.110	2.2
MAR 22...	6.9	75	.008	1.7	.050	.29	2.0	.070	2.1
MAY 29...	5.7	76	.056	.80	.060	1.1	1.9	.810	6.8
JUL 19...	8.5	82	.017	.88	.560	.56	1.4	.200	4.9
AUG 06...	7.7	68	.029	.60	.050	.77	1.4	.380	5.8
SEP 26...	8.9	62	.006	1.3	<.050	.21	1.6	.080	2.2

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY											
29...	0940	<.5	--	--	70	2	--	<10	50	1	--
SEP											
26...	1340	--	.1	2.1	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY											
29...	20	--	--	6	--	7000	--	17	--	120	--
SEP											
26...	--	10	<10	--	<1	--	13000	--	20	--	42

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
29...	<.1	--	10	--	<1	--	90	--	<1	--	--
SEP											
26...	--	<.01	--	<10	--	<1	--	20	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	<.1	10	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ

LOCATION.--Lat 40°19'19", long 74°36'31", Mercer County, Hydrologic Unit 02030105, at bridge on Millstone Road in Grovers Mill, 0.3 mi upstream from Cranbury Brook, and 2.7 mi north of Dutch Neck.

DRAINAGE AREA.--43.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 04...	1100	148	6.6	17.5	6.3	65	2.1	330	490
FEB 23...	0920	195	6.8	6.0	10.5	84	1.3	20	<200
MAR 27...	1130	193	7.0	9.0	10.6	91	2.1	<20	<20
JUN 12...	1430	175	6.8	26.0	7.0	85	3.4	330	700
JUL 25...	1200	150	6.9	23.5	6.4	75	1.6	<200	500
AUG 20...	1430	174	6.8	23.0	7.7	89	3.0	<200	500
SEP 27...	1300	244	7.2	17.0	7.6	78	1.8	1100	130

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 04...	39	9.2	4.0	9.6	4.2	15	21	18	.20
FEB 23...	47	11	4.8	13	3.2	7.0	26	24	.20
MAR 27...	43	9.8	4.6	13	2.9	6.0	25	24	.20
JUN 12...	47	11	4.8	11	3.0	17	17	19	.20
JUL 25...	41	9.4	4.3	8.8	2.8	19	17	17	.30
AUG 20...	44	10	4.6	10	3.2	20	18	20	.30
SEP 27...	51	13	4.5	19	4.5	19	20	21	.50

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	7.6	102	.022	1.5	.080	.52	2.0	.200	4.0
FEB 23...	7.4	116	.013	2.5	1.31	1.4	3.9	.220	3.4
MAR 27...	5.7	106	.020	2.5	.980	1.3	3.8	.160	2.7
JUN 12...	8.1	133	.240	2.8	.600	1.1	3.8	.300	5.2
JUL 25...	7.4	122	.084	1.8	.170	.77	2.6	.310	5.6
AUG 20...	8.0	107	.086	3.0	.090	.70	3.7	.170	4.4
SEP 27...	8.8	145	.124	3.7	E3.40	>3.3	--	.440	3.2

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
04...	1100	<.5	--	--	<10	4	--	<10	40	3	--
JUN											
12...	1430	<.5	--	--	<10	3	--	<10	40	2	--
SEP											
27...	1300	--	<.1	18	--	--	1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
04...	<10	--	--	<10	--	870	--	3	--	10	--
JUN											
12...	20	--	--	2	--	2100	--	4	--	130	--
SEP											
27...	--	10	<10	--	20	--	11000	--	40	--	150

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
04...	<.1	--	1	--	<1	--	40	--	<1	--	--
JUN											
12...	.1	--	6	--	<1	--	20	--	5	--	--
SEP											
27...	--	<.01	--	<10	--	<1	--	50	--	3	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.1	5.0	5.5	7.4	3.8	<.1	1.7	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01401000 STONY BROOK AT PRINCETON, NJ

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, Hydrologic Unit 02030105, at bridge on U.S. Highway 206, 1.6 mi southwest of Princeton, and 4.0 mi upstream from Carnegie Lake.

DRAINAGE AREA.--44.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 62.23 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records fair. No gage-height record Oct. 1-5, Dec. 13, 22-28, Apr. 5, May 30, 31. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal.

AVERAGE DISCHARGE.--31 years, 65.1 ft³/s, 19.86 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft³/s Aug. 28, 1971, gage height, 14.26 ft, from rating curve extended above 4,000 ft³/s on basis of contracted-opening measurement of peak flow; no flow many days in August and September 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	---	2950	8.57	May 29	2215	2280	7.46
Dec. 22	1745	2140	7.18	May 30	0845	2430	7.74
Apr. 5	---	3400	---	July 7	1515	*5350	11.32

Minimum discharge, 0.99 ft³/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.5	62	50	32	114	330	42	219	8.6	25	2.8
2	3.4	3.6	45	45	29	80	210	31	126	8.7	20	3.5
3	2.3	3.7	56	41	42	65	139	31	87	11	18	4.2
4	1.8	3.9	648	38	439	52	123	371	70	8.7	16	14
5	2.7	4.1	263	38	197	80	1500	180	48	9.2	43	9.6
6	1.7	3.8	209	37	126	284	408	81	36	56	44	4.9
7	1.4	3.5	354	36	93	141	187	60	30	1320	21	3.5
8	1.4	3.1	117	28	52	92	129	83	24	177	16	2.7
9	1.2	2.8	80	25	46	83	102	197	20	69	13	2.3
10	1.1	25	64	24	41	63	86	83	16	40	11	2.1
11	1.0	172	51	42	63	61	72	58	13	41	11	2.0
12	3.5	66	407	26	148	52	61	51	11	99	9.8	2.7
13	6.8	24	1520	27	125	123	52	66	9.2	34	9.4	2.0
14	14	16	754	28	116	904	47	47	20	21	8.2	1.8
15	7.8	55	216	25	871	430	100	36	12	15	6.9	10
16	4.2	490	134	18	338	301	486	30	8.2	12	5.8	8.9
17	2.9	97	98	21	171	214	217	25	8.3	11	5.1	4.4
18	2.2	44	74	19	129	137	147	22	19	48	4.4	3.2
19	5.2	30	63	22	103	111	292	23	19	42	4.0	2.5
20	6.5	23	44	19	88	93	251	24	13	19	3.8	2.1
21	4.1	316	34	16	70	89	126	79	8.6	114	3.5	1.9
22	3.1	92	799	14	58	101	89	38	6.7	102	3.5	1.8
23	8.4	49	289	16	54	70	128	44	5.7	40	7.9	1.6
24	193	46	120	25	397	53	170	39	7.5	26	11	1.4
25	51	435	54	117	170	51	108	22	44	18	6.2	1.4
26	17	207	56	157	122	54	78	22	21	13	4.1	1.2
27	10	96	47	158	86	43	62	51	8.9	477	3.3	1.2
28	7.3	84	274	157	397	190	51	43	11	192	2.9	3.7
29	6.2	294	404	73	254	945	52	846	11	73	2.5	3.8
30	4.8	103	110	50	---	651	47	1670	6.3	45	2.4	3.1
31	3.5	---	59	53	---	482	---	684	---	34	2.7	---
TOTAL	381.6	2796.0	7505	1445	4857	6209	5850	5079	939.4	3184.2	345.4	110.3
MEAN	12.3	93.2	242	46.6	167	200	195	164	31.3	103	11.1	3.68
MAX	193	490	1520	158	871	945	1500	1670	219	1320	44	14
MIN	1.0	2.8	34	14	29	43	47	22	5.7	8.6	2.4	1.2
CFSM	.28	2.09	5.44	1.05	3.75	4.49	4.38	3.69	.70	2.31	.25	.08
IN.	.32	2.34	6.27	1.21	4.06	5.19	4.89	4.25	.79	2.66	.29	.09

CAL YR 1983 TOTAL 36146.70 MEAN 99.0 MAX 1890 MIN .61 CFSM 2.22 IN. 30.22
WTR YR 1984 TOTAL 38701.9 MEAN 106 MAX 1670 MIN 1.0 CFSM 2.38 IN. 32.35

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-75, 1978 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1956 to September 1962, October 1963 to September 1964, October 1965 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: January 1956 to June 1970.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 05...	1015	7.0	222	7.8	17.5	6.5	69	.9	240	22
FEB 08...	1430	53	176	7.6	.0	13.6	91	1.0	--	--
MAR 26...	1045	56	167	9.0	7.5	15.9	132	1.8	<20	<20
JUN 04...	1430	69	156	7.6	20.5	9.8	108	1.9	490	310
JUL 18...	1500	62	144	7.8	23.5	8.1	96	2.5	9200	>24000
AUG 22...	0930	3.7	262	7.8	18.0	6.6	69	3.0	130	940
SEP 26...	1015	1.3	290	8.1	20.0	7.6	84	2.1	<200	200

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	77	18	7.8	18	2.5	61	23	22	.20
FEB 08...	52	12	5.4	12	1.5	25	24	20	<.10
MAR 26...	53	12	5.5	11	1.3	28	26	16	<.10
JUN 04...	51	12	5.1	8.7	1.9	30	22	10	.20
JUL 18...	44	11	4.1	8.6	2.2	31	16	11	.10
AUG 22...	80	19	7.8	18	2.3	64	28	22	.10
SEP 26...	85	20	8.4	24	2.3	68	28	31	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	1.7	133	.004	.07	<.050	.34	.41	.080	4.3
FEB 08...	12	125	.011	1.1	.070	.24	1.4	.070	3.6
MAR 26...	9.4	102	.009	.95	<.050	.20	1.2	.030	1.9
JUN 04...	13	118	.012	1.3	<.050	.56	1.8	.090	3.2
JUL 18...	4.2	106	.020	.45	.060	.88	1.3	.120	4.0
AUG 22...	3.5	148	.003	.07	.170	.36	.43	.050	2.8
SEP 26...	3.4	160	.004	<.05	.130	.29	--	.060	2.9

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 05...	1015	<.5	2200	.7	2.4	10	4	<1	<10	140	<1	1
SEP 26...	1015	<.5	--	--	--	<10	2	--	<10	60	2	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 05...	10	10	20	10	20	350	23000	<1	40	50	730
SEP 26...	10	--	--	4	--	170	--	5	--	40	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	<.1	.02	2	20	<1	<1	10	100	3	11	<1.0
SEP 26...	<.1	--	<1	--	<1	--	10	--	3	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	<.1	30	7.7	4.9	11	<.1	.3	<.1	<.1	<.1	<.1
SEP 26...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
SEP 26...	--	--	--	--	--	--	--	--	--	--	--

01401440 MILLSTONE RIVER AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'15", Middlesex County, Hydrologic Unit 02030105, at bridge on Lincoln Highway in Kingston, 0.2 mi downstream from the outflow of Carnegie Lake, and 3.0 mi northwest of Plainsboro.

DRAINAGE AREA.--172 mi², includes 8.0 mi² which drains into Delaware and Raritan Canal.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT									
05...	1500	152	8.9	21.0	9.5	108	4.1	80	330
FEB									
08...	1030	170	7.0	1.0	13.6	93	4.8	--	--
MAR									
26...	1400	171	7.2	8.0	11.7	98	2.4	2	<2
JUN									
04...	1030	115	7.1	17.0	9.3	95	1.8	130	80
JUL									
18...	1030	128	9.0	27.0	7.5	94	3.3	1300	2200
AUG									
22...	1245	137	7.7	25.0	8.4	102	6.3	200	790
SEP									
27...	1000	180	7.9	19.0	9.0	96	4.8	<200	<200

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	47	11	4.7	12	3.6	23	19	18	.20
FEB									
08...	38	8.8	3.8	13	2.5	11	21	24	.30
MAR									
26...	45	10	4.9	11	2.1	16	24	20	.10
JUN									
04...	35	8.4	3.5	5.9	2.2	15	17	9.3	.20
JUL									
18...	40	9.5	3.9	6.8	2.6	23	16	10	.20
AUG									
22...	42	9.9	4.2	8.5	2.8	26	19	15	.20
SEP									
27...	52	12	5.3	12	3.1	29	19	19	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	2.3	91	.021	E1.1	<.050	.68	--	.100	4.7
FEB									
08...	7.2	116	.017	1.6	.310	.82	2.4	.120	3.7
MAR									
26...	7.4	102	.017	2.0	.300	.59	2.5	.080	2.6
JUN									
04...	7.9	96	.030	1.2	<.050	.98	2.1	.180	6.4
JUL									
18...	7.6	109	.028	.58	.110	.60	1.2	.110	5.6
AUG									
22...	5.9	105	.015	.54	.120	.60	1.1	.120	5.0
SEP									
27...	.9	107	.022	1.3	.140	.39	1.7	.090	3.3

01401440 MILLSTONE RIVER AT KINGSTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
JUN											
04...	1030	<.5	--	--	20	2	--	<10	30	<1	--
SEP											
27...	1000	--	<.1	5.8	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN										
04...	30	--	--	7	--	1500	--	4	--	140
SEP										
27...	--	9	<10	--	20	--	5300	--	80	--

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)
JUN										
04...	--	.1	--	6	--	<1	--	60	--	<1
SEP										
27...	150	--	<.01	--	<10	--	<1	--	70	--

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ

LOCATION.--Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, at bridge on U.S. Route 206 at State Route 533, 0.7 mi upstream from Pike Run, 1.2 mi northwest of Rocky Hill, and 4.6 mi north of Princeton.

DRAINAGE AREA.--27.6 mi^{2}.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
05...	1315	E1.9	256	7.9	18.5	8.9	96	1.4	70	1700
FEB										
07...	1330	E55	153	7.4	2.5	14.9	108	.8	70	170
MAR										
21...	1330	E52	159	7.5	7.0	12.6	--	.8	110	46
MAY										
24...	1330	E24	159	8.4	21.5	12.0	135	--	20	70
JUL										
17...	1330	E7.2	187	7.8	25.5	9.2	112	1.1	490	330
AUG										
21...	1300	E2.4	238	7.9	19.0	9.6	103	1.6	400	170
SEP										
25...	1330	E1.0	300	7.9	19.0	8.5	92	1.1	1100	500

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	100	24	9.8	20	3.8	69	32	21	.10
FEB									
07...	44	10	4.7	9.6	1.3	24	22	16	<.10
MAR									
21...	--	--	--	--	--	--	--	--	--
MAY									
24...	51	12	5.2	8.9	1.7	35	24	10	<.10
JUL									
17...	63	15	6.1	9.5	2.2	41	23	13	<.10
AUG									
21...	76	18	7.5	13	2.4	53	26	17	.10
SEP									
25...	97	23	9.5	19	3.5	67	36	24	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	4.9	175	.030	.93	.050	.68	1.6	.280	4.1
FEB									
07...	12	103	.011	1.3	.060	.23	1.6	.080	2.9
MAR									
21...	--	--	.010	1.4	.100	.58	2.0	.050	--
MAY									
24...	6.9	125	.023	.64	.080	.23	.87	.110	3.4
JUL									
17...	8.5	143	.015	1.3	.100	.36	1.7	.110	3.1
AUG									
21...	7.9	145	.017	1.4	.050	.40	1.8	.200	2.5
SEP									
25...	5.2	175	.035	1.4	.110	.78	2.2	.380	3.6

RARITAN RIVER BASIN

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
05...	1315	--	6900	.2	21	--	--	<1	--	--	--	2
MAY												
24...	1330	<.5	--	--	--	10	1	--	<10	50	1	--
SEP												
25...	1330	<.5	--	--	--	10	2	--	<10	80	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
05...	--	1	<10	--	<10	--	14	--	<10	--	41
MAY											
24...	<10	--	--	5	--	390	--	4	--	40	--
SEP											
25...	10	--	--	3	--	180	--	1	--	60	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	--	.07	--	<10	--	<1	--	1	--	480	<1.0
MAY											
24...	<.1	--	3	--	<1	--	30	--	<1	--	--
SEP											
25...	<.1	--	1	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.1	11	17	.2	16	<.1	<.1	.1	<.1	<.1	<.1
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

01401650 PIKE RUN AT BELLE MEAD, NJ

LOCATION.--Lat 40°28'05", long 74°38'57", Somerset County, Hydrologic Unit 02030105, on right bank 20 ft upstream of Township Line Road, 0.7 mi east of Belle Mead, 0.8 mi upstream of Cruser Brook, and 1.0 mi downstream of bridge on U.S. Route 206.

DRAINAGE AREA.--5.36 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete parking-block control. Datum of gage is 58.85 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for period of no gage-height record, July 7 to 11, which are poor.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s July 7, 1984, gage height, 11.76 ft; no flow many days in August and September 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, 13.5 ft, from floodmark, present datum, Aug. 28, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 16	0125	352	5.71	Apr. 5	0700	583	7.62
Dec. 4	1335	356	6.33	May 29	1930	487	7.12
Dec. 13	1920	595	7.68	May 30	0640	513	7.26
Dec. 22	1405	463	6.99	July 7	0945	*2010	11.76
Feb. 15	1105	307	5.98	July 21	1055	303	5.95

Minimum discharge, 0.15 ft³/s Sept. 27, gage height, 2.70 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.97	6.4	5.2	10	7.7	28	3.3	11	2.1	2.4	.27
2	2.3	.81	4.8	4.1	7.0	5.7	16	2.8	5.9	1.6	2.0	.26
3	.37	.86	7.3	3.9	10	4.8	11	3.4	4.0	1.8	1.8	.26
4	.23	.90	106	3.5	63	4.1	25	52	3.4	1.8	1.6	5.0
5	.20	.89	18	3.6	17	11	274	14	2.7	1.3	8.3	1.5
6	.71	.77	32	3.5	14	26	37	7.5	2.4	4.7	3.7	.45
7	.24	.70	28	3.5	8.2	11	14	5.7	2.1	528	2.5	.27
8	.20	.70	8.9	3.3	11	7.1	9.6	12	1.9	21	2.2	.26
9	.18	.70	6.2	2.7	6.6	7.2	7.7	19	1.7	15	1.7	.25
10	.16	29	5.2	3.1	4.8	9.6	6.8	6.7	1.4	8.0	1.6	.24
11	.16	29	4.2	6.2	6.8	5.6	6.1	4.5	1.2	19	1.3	.65
12	3.3	7.3	91	7.9	14	7.7	5.3	3.9	.97	7.3	1.2	.26
13	2.6	3.8	288	3.3	9.7	21	4.7	3.7	1.0	2.9	1.2	.23
14	6.9	2.7	60	3.8	13	120	4.9	3.9	2.2	2.4	.92	.22
15	.90	26	16	3.3	141	31	16	2.9	1.1	1.8	.80	1.2
16	.31	94	10	2.8	29	19	63	2.3	.90	3.7	.49	.84
17	.27	9.7	7.9	2.3	14	13	16	1.9	1.0	2.2	.32	.26
18	.26	5.5	6.3	2.5	11	9.2	11	1.5	3.0	6.3	.30	.23
19	6.1	4.2	5.7	3.1	8.9	8.1	11	2.0	3.5	6.3	.30	.22
20	1.6	3.5	4.5	2.6	7.8	6.3	9.2	1.9	1.6	2.6	.31	.21
21	.69	68	3.9	2.8	6.5	8.1	6.9	7.8	1.3	55	.30	.20
22	.46	9.7	137	2.1	5.6	8.5	5.6	2.1	1.0	12	.26	.19
23	6.3	5.9	24	4.4	5.5	5.7	12	1.7	.90	5.2	3.6	.17
24	54	9.3	12	12	35	4.6	14	2.3	2.2	3.4	1.1	.19
25	5.8	88	7.7	37	11	4.4	8.4	1.2	10	2.6	.33	.17
26	2.9	17	6.1	36	8.0	4.3	6.3	2.1	1.8	2.1	.27	.17
27	1.8	8.8	5.1	31	5.6	3.7	5.2	4.0	1.3	67	.26	.15
28	1.3	21	73	12	50	22	4.5	4.8	1.1	10	2.1	1.7
29	1.0	37	34	6.2	17	88	4.4	149	.90	5.3	3.8	.62
30	.94	9.8	13	6.1	---	78	3.9	220	1.9	3.7	.85	.25
31	.91	---	8.1	4.7	---	65	---	50	---	3.0	.36	---
TOTAL	103.50	496.50	1040.3	228.5	551.0	627.4	647.5	599.9	75.37	809.1	48.17	16.89
MEAN	3.34	16.6	33.6	7.37	19.0	20.2	21.6	19.4	2.51	26.1	1.55	.56
MAX	54	94	288	37	141	120	274	220	11	528	8.3	5.0
MIN	.16	.70	3.9	2.1	4.8	3.7	3.9	1.2	.90	1.3	.26	.15
CFSM	.62	3.10	6.27	1.37	3.54	3.77	4.03	3.62	.47	4.87	.29	.10
IN.	.72	3.45	7.22	1.59	3.82	4.35	4.49	4.16	.52	5.62	.33	.12

CAL YR 1983 TOTAL 5068.65 MEAN 13.9 MAX 304 MIN .00 CFSM 2.59 IN. 35.18
WTR YR 1984 TOTAL 5244.13 MEAN 14.3 MAX 528 MIN .15 CFSM 2.67 IN. 36.40

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ

LOCATION.--Lat 40°28'30", long 74°34'34", Somerset County, Hydrologic Unit 02030105, on left bank 30 ft downstream from highway bridge at Blackwells Mills, and 0.3 mi downstream from Six Mile Run.

DRAINAGE AREA.--258 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to December 1904 (gage heights only), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at Millstone" 1903-04.

REVISED RECORDS.--WSP 1552: 1924-25(M), 1926.

GAGE.--Water-stage recorder. Concrete control since Nov. 18, 1933. Datum of gage is 26.97 ft National Geodetic Vertical Datum of 1929. June 27, 1903 to Dec. 31, 1904, nonrecording gage at bridge 2.0 mi downstream at Millstone at different datum. Aug. 4, 1921 to Aug. 16, 1928, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those above 1,200 ft³/s, which are poor. Inflow from and losses to Delaware and Raritan Canal above station. Flow slightly regulated by Carnegie Lake, capacity, 310,000,000 gal and several smaller reservoirs, combined capacity, 49,800,000 gal.

AVERAGE DISCHARGE.--63 years, 378 ft³/s, 19.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft³/s Aug. 28, 1971, gage height, 18.68 ft, from high-water mark; minimum, about 5 ft³/s Sept. 16, 1923.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	0730	7460	12.30	Apr. 5	2300	6090	11.45
Dec. 23	0545	3170	8.36	May 30	2000	*8460	12.87
Mar. 30	1945	3580	9.01	July 8	0145	6440	11.68

Minimum discharge, 52 ft³/s Sept. 9, gage height, 1.48 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	95	457	432	314	849	2300	255	3620	213	214	66
2	155	93	361	351	269	534	1230	223	1940	212	169	63
3	153	91	357	319	310	419	799	205	788	175	146	66
4	121	93	1260	306	1360	358	650	845	523	138	135	173
5	122	92	2300	306	1320	388	3680	888	369	111	659	132
6	143	89	1650	309	797	891	4520	530	312	251	586	94
7	122	89	1710	302	593	751	2270	379	275	2610	375	81
8	103	87	839	271	414	568	915	372	244	4900	314	68
9	100	81	562	241	341	468	630	770	197	1990	230	57
10	86	147	456	235	317	399	542	698	159	598	165	61
11	71	855	349	296	330	371	457	499	142	407	128	66
12	95	612	950	258	497	352	384	339	120	493	121	63
13	140	514	3310	243	532	423	346	326	101	299	107	61
14	185	344	6600	243	499	2180	334	303	145	202	222	65
15	144	320	3380	235	1810	2720	515	267	163	156	203	151
16	121	1910	1690	210	2520	2020	1270	232	139	158	159	144
17	102	1170	725	204	1330	1110	1510	203	128	128	107	141
18	83	651	539	202	741	724	899	183	172	242	77	110
19	120	406	451	209	587	580	728	172	176	321	74	81
20	122	309	379	192	496	497	1010	166	140	204	73	74
21	99	1280	305	182	424	479	661	263	119	597	67	67
22	85	808	1420	163	368	552	473	237	94	626	67	66
23	96	553	2880	166	329	415	473	201	95	369	102	72
24	946	445	1710	194	961	365	672	274	122	270	109	74
25	651	1270	690	492	873	328	533	292	316	202	78	73
26	466	1630	1010	670	647	323	419	306	176	144	65	70
27	308	970	611	746	471	294	357	346	113	1100	69	67
28	227	677	746	774	964	450	310	259	83	1810	74	84
29	159	1130	2130	574	1430	1960	290	1420	115	887	85	96
30	120	666	1230	434	---	3400	278	6060	174	523	76	84
31	105	---	614	365	---	3070	---	6810	---	308	72	---
TOTAL	5635	17477	41671	10124	21844	28238	29455	24323	11260	20644	5128	2570
MEAN	182	583	1344	327	753	911	982	785	375	666	165	85.7
MAX	946	1910	6600	774	2520	3400	4520	6810	3620	4900	659	173
MIN	71	81	305	163	269	294	278	166	83	111	65	57
CFSM	.71	2.26	5.21	1.27	2.92	3.53	3.81	3.04	1.45	2.58	.64	.33
IN	.81	2.52	6.01	1.46	3.15	4.07	4.25	3.51	1.62	2.98	.74	.37

CAL YR 1983 TOTAL 203597 MEAN 558 MAX 6600 MIN 29 CFSM 2.16 IN 29.36
WTR YR 1984 TOTAL 218369 MEAN 597 MAX 6810 MIN 57 CFSM 2.31 IN 31.49

01402540 MILLSTONE RIVER AT WESTON, NJ

LOCATION.--Lat 40°31'47", long 74°35'19", Somerset County, Hydrologic Unit 02030105, at bridge on Wilhouski Street in Weston, 50 ft upstream from Royce Brook, 0.8 mi southwest of Alma White College, and 1.9 mi north of Millstone.

DRAINAGE AREA.--271 mi^2, includes approximately 13 mi^3 which drains into Delaware and Raritan canal.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 06...	1000	152	191	7.5	19.0	7.9	85	2.6	130	940
FEB 07...	1045	635	168	6.9	1.0	12.4	86	1.8	>2400	540
MAR 21...	1030	455	175	7.2	7.5	11.0	92	1.4	920	170
MAY 24...	1030	285	192	7.4	20.5	6.4	70	--	920	540
JUL 17...	1030	120	186	7.4	25.5	7.6	92	2.1	1700	2400
AUG 21...	1030	65	240	7.4	21.5	7.2	81	1.4	130	700
SEP 25...	1030	74	270	7.9	19.0	9.6	104	1.8	<200	<200

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 06...	62	16	5.3	15	3.8	32	25	21	.20
FEB 07...	42	9.9	4.2	13	2.1	20	21	23	<.10
MAR 21...	49	12	4.7	11	1.9	20	27	17	<.10
MAY 24...	57	14	5.4	11	2.5	31	27	16	.10
JUL 17...	59	15	5.2	10	2.8	33	25	14	.20
AUG 21...	70	18	6.1	14	3.3	42	27	20	.20
SEP 25...	81	19	8.2	18	4.1	48	30	25	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	3.8	121	.016	2.1	<.050	.63	2.7	.300	8.5
FEB 07...	8.3	107	.023	1.5	.420	.82	2.3	.160	4.2
MAR 21...	9.6	102	.019	1.8	.310	.94	2.7	.120	3.1
MAY 24...	6.8	157	.083	1.5	.140	.83	2.3	.210	3.6
JUL 17...	9.9	141	.013	1.5	.040	.62	2.1	.230	4.7
AUG 21...	8.3	155	.008	2.3	.140	.46	2.8	.270	3.8
SEP 25...	4.4	156	.015	3.6	.080	.85	4.4	.370	3.2

01402540 MILLSTONE RIVER AT WESTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
06...	1000	<.5	5200	.1	21	10	2	<1	<10	90	<1	5
MAY												
24...	1030	<.5	--	--	--	<10	1	--	<10	50	1	--
SEP												
25...	1030	<.5	--	--	--	10	2	--	<10	90	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
06...	<10	20	10	0	20	640	9100	5	20	80	320
MAY											
24...	10	--	--	7	--	780	--	8	--	120	--
SEP											
25...	<10	--	--	4	--	440	--	1	--	90	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
06...	<.1	.02	5	10	<1	<1	10	60	4	5	<1.0
MAY											
24...	<.1	--	5	--	<1	--	40	--	<1	--	--
SEP											
25...	<.1	--	3	--	<1	--	10	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
06...	<.1	4.0	1.3	3.1	2.0	<.1	<.1	<.1	<.1	<.1	<.1
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
06...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

01402600 ROYCE BROOK TRIBUTARY NEAR BELLE MEAD, NJ

LOCATION.--Lat 40°29'56", long 74°39'05", Somerset County, Hydrologic Unit 02030105, on right bank 25 ft upstream from bridge on State Highway 514 (Amwell Road), 1,200 ft upstream from mouth, and 2.0 mi north of Belle Mead.

DRAINAGE AREA.--1.20 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to September 1974, January 1980 to current year.

REVISED RECORDS.--WRD NJ 69: 1967, 1968.

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 66.98 ft National Geodetic Vertical Datum of 1929. Prior to September 1974 at same site at datum 0.79 ft higher.

REMARKS.--Water-discharge records fair. No gage-height record Jan. 2 to 9. Some regulation from storm-water detention basin 542 ft upstream of gage since 1980.

AVERAGE DISCHARGE.--12 years (water years 1967-74, 1981-84), 2.46 ft³/s, 27.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s Aug. 28, 1971, gage height, 7.80 ft, present datum, from high-water mark, from rating curve extended above 203 ft³/s on basis of slope-area measurement of peak flow; no flow part of or all of some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1055	134	3.63	May 29	1700	172	3.95
Dec. 13	1745	150	3.76	May 30	0355	208	4.30
Dec. 22	1150	171	3.94	July 7	0735	*402	6.32
Dec. 28	1750	128	3.58	July 21	0935	282	4.98
Feb. 15	0535	125	3.55	July 27	0850	190	4.13
Apr. 5	0510	166	3.89				

No flow Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.25	1.4	.87	.95	1.7	5.5	.51	3.3	2.2	.79	.23
2	1.8	.22	1.0	.62	.74	1.2	3.0	.42	1.9	.92	1.2	.22
3	.38	.28	2.0	.47	2.8	.95	2.0	1.7	1.4	1.0	.73	.63
4	.23	.29	30	.36	15	.82	11	12	1.2	.73	.57	5.5
5	.73	.19	4.1	.31	4.1	3.1	63	2.7	.90	1.2	4.3	.55
6	.35	.22	9.3	.27	3.2	4.8	5.5	1.4	.80	2.8	.74	.31
7	.16	.14	5.6	.24	1.9	2.3	2.6	1.2	.61	92	2.8	.23
8	.13	.15	2.1	.21	1.2	1.5	1.7	4.1	.62	4.4	1.2	.21
9	.12	.15	1.4	.37	.93	1.4	1.3	3.2	.53	2.4	.63	.20
10	.09	12	1.3	.96	1.1	1.2	1.1	1.4	.46	1.7	.58	.87
11	.09	5.5	1.1	1.1	1.9	1.1	.99	1.0	.44	7.4	.52	.77
12	3.1	1.7	30	.56	2.9	.98	.91	1.1	.42	2.7	1.0	.23
13	1.1	.91	72	.41	2.3	11	.74	.87	1.0	1.3	.52	.20
14	5.8	.69	14	.48	3.3	31	.87	1.1	1.1	1.1	.42	.22
15	.58	14	3.7	.41	44	5.9	3.3	.67	.41	.93	.36	1.0
16	.38	16	2.3	.32	6.3	3.5	16	.54	.35	3.2	.34	.44
17	.31	2.3	1.7	.27	3.2	2.4	3.5	.54	.73	.88	.27	.22
18	.27	1.3	1.4	.24	2.5	1.7	2.0	.46	2.0	3.5	.25	.20
19	6.0	.94	1.2	.36	1.9	1.3	1.6	.66	3.9	2.1	.25	.20
20	.77	.81	.94	.26	1.5	1.1	1.3	2.2	.88	.81	.25	.14
21	.48	17	.79	.23	1.2	1.8	.93	2.8	.65	36	.19	.08
22	.35	2.1	41	.20	1.0	1.4	.70	.85	.53	3.7	.20	.04
23	9.8	1.3	4.9	.22	1.8	.99	2.5	1.1	.49	1.9	6.4	.04
24	24	2.7	2.2	2.3	7.9	.85	2.0	.73	5.5	1.2	.44	.04
25	2.1	23	1.2	5.5	2.7	.79	1.0	.54	9.0	.82	.29	.04
26	1.0	3.7	.95	4.7	1.7	.74	.71	1.1	1.3	.70	.25	.10
27	.66	1.9	1.4	4.3	1.3	.66	.59	.78	.93	38	.25	.01
28	.52	7.1	24	2.6	12	5.5	.64	4.8	.77	2.9	.68	1.4
29	.37	7.8	8.7	1.5	3.5	26	.73	45	.74	1.6	.49	.29
30	.27	2.2	1.7	1.2	---	21	.57	65	1.8	1.2	.30	.16
31	.26	---	1.1	1.3	---	18	---	15	---	.90	.37	---
TOTAL	62.69	126.84	274.48	33.14	134.82	156.68	138.28	175.47	44.66	222.19	27.58	14.77
MEAN	2.02	4.23	8.85	1.07	4.65	5.05	4.61	5.66	1.49	7.17	.89	.49
MAX	24	23	72	5.5	44	31	63	65	9.0	92	6.4	5.5
MIN	.09	.14	.79	.20	.74	.66	.57	.42	.35	.70	.19	.01
CFSM	1.68	3.53	7.37	.89	3.88	4.21	3.84	4.72	1.24	5.97	.74	.41
IN.	1.94	3.93	8.51	1.03	4.18	4.86	4.29	5.44	1.38	6.89	.85	.46

CAL YR 1983 TOTAL 1303.02 MEAN 3.57 MAX 72 MIN .03 CFSM 2.97 IN. 40.39
WTR YR 1984 TOTAL 1411.60 MEAN 3.86 MAX 92 MIN .01 CFSM 3.22 IN. 43.76

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ

LOCATION.--Lat 40°33'05", long 74°32'54", Somerset County, Hydrologic Unit 02030105, on right bank 1,000 ft downstream from Calco Dam and Cuckold Brook, 1,400 ft upstream of bridge on Interstate 287, 1.2 mi downstream from Millstone River, and 1.2 mi southwest of Bound Brook.

DRAINAGE AREA.--785 mi² (includes 11 mi² which drains into the Delaware and Raritan Canal).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to March 1909, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1966 published as "Raritan River at Bound Brook" (station 01403000).

REVISED RECORDS.--WSP 1552: 1903-07, 1946(M), 1949, 1952(P).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Sept. 12, 1903 to Mar. 31, 1909, nonrecording gages at highway bridge, 1.2 mi downstream at different datum. October 1944 to Sept. 30, 1966, water-stage recorder and concrete control at site 1,120 ft upstream at datum 18.06 ft higher.

REMARKS.--Water-discharge records good. Water diverted 1.2 mi above station by Elizabethtown Water Co. for municipal supply (see Raritan River Basin, diversions). Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River Basin, reservoirs in). Diversions to and releases from Round Valley Reservoir (see Raritan River Basin, diversions and station 01399690). Slight diurnal fluctuations at low flow.

AVERAGE DISCHARGE.--45 years, (water years 1904-08, 1945-84), 1,293 ft³/s, adjusted for diversion by Elizabethtown Water Co. since 1944, and change in contents in Spruce Run Reservoir since 1964 and Round Valley Reservoir since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,100 ft³/s Aug. 28, 1971, elevation, 37.47 ft, from floodmark; minimum daily, 37 ft³/s Sept. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Dec. 14	0645	21800	29.62	May 30	1845	24200	30.50
Feb. 15	2115	12900	26.08	July 7	2030	*28600	32.00
Apr. 5	2015	25500	30.94				

Minimum discharge, 107 ft³/s Sept. 23, elevation, 16.50 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	222	1470	1180	642	2280	6850	962	8600	1770	702	149
2	368	212	1080	1030	547	1560	4410	861	4970	2260	598	134
3	301	219	1020	907	615	1250	3350	753	2900	889	609	165
4	174	215	4460	853	4370	1080	2990	4990	2260	661	522	518
5	203	204	5410	829	3450	1150	17500	3920	1720	529	1150	497
6	280	190	3400	815	2080	2820	17200	2120	1420	3020	1440	242
7	180	202	4880	776	1500	2270	7390	1620	1250	15500	844	192
8	150	198	2350	640	902	1670	4110	1720	1080	15000	783	194
9	133	187	1530	568	787	1450	3080	3250	921	5090	582	145
10	148	322	1230	638	785	1240	2670	2160	795	2530	471	145
11	152	2030	951	816	966	1170	2250	1660	684	1930	438	201
12	234	1500	3020	551	2070	1070	1930	1330	590	2790	418	178
13	311	898	13000	567	1750	1210	1700	1460	530	1750	449	140
14	404	648	18400	641	1640	9290	1590	1310	615	1350	489	166
15	274	576	7960	540	8640	7770	2160	1110	541	1150	450	251
16	178	5330	4140	393	8250	5450	5060	972	378	1140	367	238
17	148	2560	2390	504	3940	3880	4270	856	346	1140	291	224
18	157	1280	1750	507	2660	2770	2810	759	597	1350	204	182
19	466	870	1440	555	2110	2280	2790	769	1030	1550	183	166
20	456	649	1160	443	1800	1950	2980	865	597	921	225	163
21	222	3000	895	391	1450	1910	2160	2980	428	2590	228	148
22	182	1830	5150	309	1180	2290	1680	1400	335	2220	158	139
23	280	1090	7840	331	1050	1710	1790	1050	283	1240	281	134
24	4430	914	3530	470	3560	1470	2190	1400	353	948	298	155
25	2020	4610	1220	1360	2770	1310	1740	1030	2580	778	212	174
26	1020	4120	1210	2040	2040	1250	1430	939	971	612	168	154
27	689	2190	1090	1930	1480	1140	1300	1260	571	3060	184	137
28	483	1660	2410	1950	2970	1560	1180	1040	432	3370	196	247
29	356	5130	7850	1110	4020	5680	1130	5730	382	1860	185	204
30	264	2430	2780	842	---	7960	1060	20600	394	1230	170	174
31	231	---	1440	810	---	7990	---	17100	---	896	175	---
TOTAL	15113	45486	116456	25296	70024	87880	112750	87986	38553	81124	13470	5956
MEAN	488	1516	3757	816	2415	2835	3758	2838	1285	2617	435	199
MAX	4430	5330	18400	2040	8640	9290	17500	20600	8600	15500	1440	518
MIN	133	187	895	309	547	1070	1060	753	283	529	158	134

CAL YR 1983 TOTAL 628133 MEAN 1721 MAX 19100 MIN 122
WTR YR 1984 TOTAL 700094 MEAN 1913 MAX 20600 MIN 133

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ

LOCATION.--Lat 40°36'44", long 74°35'28", Somerset County, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Crim Road, 1.4 mi northwest of Martinsville, and 1.8 mi upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--1.99 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--5 years, 3.18 ft^3/s, 21.70 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 816 ft^3/s May 11, 1981, gage height, 5.60 ft; no flow part or all of each day Sept. 19-30, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 225 ft^3/s, revised, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	0855	252	4.41	May 30	0445	503	5.10
Dec. 22	1150	237	4.36	July 7	0420	*652	5.41
Dec. 28	1805	258	4.43	July 21	1005	447	4.97
Apr. 5	0500	299	4.56				

Minimum daily discharge, 0.05 ft^3/s Oct. 4, 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.09	1.4	1.2	1.1	2.1	24	1.4	5.6	1.6	.73	.12
2	.79	.09	.94	1.3	.94	1.6	13	1.3	4.0	.67	.73	.11
3	.06	.09	1.4	1.3	2.2	1.4	6.3	3.1	3.5	.48	.70	.24
4	.05	.10	40	1.3	19	1.3	21	21	2.8	.36	.78	.57
5	.61	.09	4.3	1.3	5.3	4.9	120	3.9	2.3	.46	1.3	.12
6	.13	.09	15	1.3	4.2	11	9.7	2.4	2.1	1.5	.69	.12
7	.05	.09	7.6	1.3	2.2	3.6	5.5	2.0	1.8	122	.57	.12
8	.05	.09	2.2	.89	1.4	2.1	4.3	14	1.6	2.7	.41	.11
9	.05	.09	1.5	.57	1.2	2.5	3.7	7.7	1.4	1.3	.34	.11
10	.05	3.6	1.3	1.7	1.5	1.9	3.3	2.9	1.3	.92	.34	.24
11	.05	2.6	.87	2.1	5.8	1.8	2.9	2.2	1.2	1.0	.34	.14
12	.29	.57	31	1.3	9.0	1.5	2.7	5.6	1.0	.83	.42	.11
13	.09	.15	115	1.4	4.5	5.2	2.5	3.5	1.0	.61	.36	.11
14	.68	.11	19	1.4	6.7	34	2.7	3.4	1.2	.51	.34	.11
15	.06	7.9	4.2	1.1	65	12	8.7	2.2	.84	.48	.33	.11
16	.06	15	2.4	1.1	8.1	8.3	24	1.9	.76	.87	.31	.11
17	.06	1.0	1.8	.87	3.8	4.9	5.7	1.6	.92	.63	.31	.11
18	.06	.25	1.5	.84	3.1	3.3	3.8	1.5	1.3	1.9	.28	.11
19	1.7	.13	1.4	.93	2.4	2.7	3.0	1.9	13	.73	.26	.11
20	.09	.11	.96	.76	2.2	2.3	2.7	16	.84	.65	.25	.10
21	.06	13	.76	.70	1.8	6.1	2.3	13	.72	33	.21	.11
22	.06	1.2	47	.70	1.5	3.8	2.1	2.8	.66	2.3	.21	.11
23	6.0	.48	5.0	.70	1.8	2.6	4.2	5.1	.64	1.2	.54	.12
24	17	1.7	2.6	3.4	15	2.0	3.9	2.9	7.1	.89	.16	.13
25	.32	24	1.8	8.5	4.1	2.0	2.5	1.8	7.2	.74	.15	.13
26	.09	3.3	1.4	4.3	2.5	1.9	2.1	4.7	.84	.66	.14	.14
27	.08	1.6	1.3	4.2	1.9	1.6	1.9	2.6	.74	15	.13	.18
28	.09	8.3	32	2.6	14	10	1.7	9.9	.66	1.7	.13	.52
29	.09	14	6.9	1.6	4.2	17	1.7	72	.60	1.1	.13	.30
30	.09	2.2	2.2	1.4	---	16	1.6	100	.67	.88	.13	.27
31	.09	---	1.4	1.3	---	27	---	22	---	.80	.14	---
TOTAL	29.01	102.02	356.13	53.36	196.44	198.4	293.5	336.3	68.29	198.47	11.86	4.99
MEAN	.94	3.40	11.5	1.72	6.77	6.40	9.78	10.8	2.28	6.40	.38	.17
MAX	17	24	115	8.5	65	34	120	100	13	122	1.3	.57
MIN	.05	.09	.76	.57	.94	1.3	1.6	1.3	.60	.36	.13	.10
CFSM	.47	1.71	5.78	.86	3.40	3.22	4.91	5.43	1.15	3.22	.19	.09
IN.	.54	1.91	6.66	1.00	3.67	3.71	5.49	6.29	1.28	3.71	.22	.09

CAL YR 1983 TOTAL 1585.66 MEAN 4.34 MAX 115 MIN .04 CFSM 2.18 IN. 29.64
WTR YR 1984 TOTAL 1848.77 MEAN 5.05 MAX 122 MIN .05 CFSM 2.54 IN. 34.56

01403160 WEST BRANCH MIDDLE BROOK NEAR SOMERVILLE, NJ

LOCATION.--Lat 40°36'28", long 74°35'11", Somerset County, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Tullo Road, 2.4 mi northeast of Somerville, and 1.4 mi upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--3.83 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 226.12 ft National Geodetic Vertical Datum of 1929 (levels by Bridgewater Township).

REMARKS.--Water-discharge records good except those below 1.0 ft³/s, January and February and period of no gage-height record, Feb. 12 to 14, which are fair.

COOPERATION.--Gage-height record collected in cooperation with Bridgewater Township.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 775 ft³/s July 7, 1984, gage height, 3.87 ft, from rating curve extended above 300 ft³/s; minimum, 0.08 ft³/s part of many days in September and October 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s, revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1030	341	3.04	May 29	1625	299	2.93
Dec. 22	1140	310	2.96	May 30	0420	614	3.60
Dec. 28	1805	345	3.05	July 7	0425	*775	3.87
Feb. 15	0915	277	2.87	July 21	1005	743	3.82
Apr. 5	0635	462	3.31				

Minimum discharge, 0.08 ft³/s Oct. 8, 11, 17, gage height 1.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.29	3.8	2.7	2.4	6.7	47	3.3	15	2.9	1.9	.31
2	1.2	.30	2.9	2.8	2.3	5.5	34	2.9	9.7	1.6	1.8	.31
3	.27	.34	3.6	2.6	5.0	4.8	21	5.6	7.9	1.2	1.7	.57
4	.22	.30	58	2.6	37	4.2	45	36	6.5	1.1	1.8	1.1
5	.83	.23	12	2.7	13	12	206	8.6	5.2	1.3	3.2	.42
6	.39	.24	28	2.7	9.9	24	27	5.7	4.4	3.1	2.0	.33
7	.13	.22	17	2.6	5.9	9.3	16	4.8	3.7	154	1.5	.32
8	.12	.22	6.3	2.0	3.4	6.0	12	22	3.1	7.7	1.2	.31
9	.12	.22	4.6	1.7	3.2	5.8	9.5	15	2.6	4.0	1.0	.31
10	.14	5.3	4.1	3.9	3.8	4.9	8.2	6.8	2.3	3.1	.99	.51
11	.11	4.6	3.2	4.2	11	4.7	7.3	5.5	2.0	3.2	.91	.42
12	.56	1.4	49	2.2	19	3.8	6.6	11	1.8	2.7	1.0	.31
13	.24	.73	176	2.0	22	11	6.0	7.8	1.8	1.8	.91	.28
14	.92	.55	44	2.2	17	57	6.2	7.4	2.1	1.5	.79	.29
15	.16	11	13	2.1	100	27	16	5.1	1.5	1.4	.70	.33
16	.12	24	7.6	1.9	22	21	42	4.5	1.3	2.0	.63	.31
17	.14	2.5	5.9	1.7	12	14	13	4.0	1.6	1.4	.60	.26
18	.13	1.4	4.8	1.6	9.7	9.6	9.1	3.7	2.5	3.9	.54	.25
19	2.4	1.1	4.2	1.7	7.7	8.0	7.5	4.4	17	1.7	.56	.25
20	.31	.91	2.9	1.6	7.0	6.8	6.8	22	2.0	1.3	.54	.24
21	.20	24	2.4	1.5	6.0	14	5.8	23	1.5	54	.47	.23
22	.16	3.1	74	1.5	5.8	9.9	5.0	6.5	1.3	6.5	.47	.29
23	7.0	2.0	14	1.5	6.0	7.1	9.2	8.7	1.2	3.7	1.2	.30
24	22	4.2	10	5.0	29	6.1	8.8	6.3	8.8	3.0	.53	.31
25	1.1	38	8.5	10	11	6.2	6.0	4.3	11	2.2	.46	.30
26	.56	7.7	4.5	8.5	7.2	5.8	5.0	8.4	2.0	1.7	.44	.34
27	.45	4.3	2.8	9.4	5.8	4.9	4.4	5.8	1.5	22	.42	.27
28	.55	15	51	6.0	31	20	4.1	15	1.3	4.4	.42	.64
29	.69	24	15	3.7	12	29	4.0	99	1.3	3.0	.42	.33
30	.57	5.8	5.4	3.0	---	28	3.7	148	1.5	2.5	.42	.33
31	.46	---	3.3	2.6	---	46	---	45	---	2.1	.44	---
TOTAL	42.54	183.95	641.8	100.2	427.1	423.1	602.2	556.1	125.4	306.0	29.96	10.77
MEAN	1.37	6.13	20.7	3.23	14.7	13.6	20.1	17.9	4.18	9.87	.97	.36
MAX	22	38	176	10	100	57	206	148	17	154	3.2	1.1
MIN	.11	.22	2.4	1.5	2.3	3.8	3.7	2.9	1.2	1.1	.42	.23
CFSM	.36	1.60	5.40	.84	3.84	3.55	5.25	4.67	1.09	2.58	.25	.09
IN.	.41	1.79	6.23	.97	4.15	4.11	5.85	5.40	1.22	2.97	.29	.10

CAL YR 1983 TOTAL 3194.70 MEAN 8.75 MAX 176 MIN .10 CFSM 2.28 IN. 31.03
WTR YR 1984 TOTAL 3449.12 MEAN 9.42 MAX 206 MIN .11 CFSM 2.46 IN. 33.50

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ
(National stream-quality accounting network)

LOCATION.--Lat 40°33'34", long 74°31'41", Somerset County, Hydrologic Unit 02030105, at Queens Bridge on Main street in Bound Brook, 1.7 mi upstream of Fieldsville Dam.

DRAINAGE AREA.--804 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1969, 1971 to 1973, 1978 and November 1981 to present. Published as "at Bound Brook" (sta. 01403000) 1964-66, and as "below Calco Dam at Bound Brook" (sta. 01403060) 1967-69.

REMARKS.--Instantaneous discharges are determined at Raritan River below Calco Dam at Bound Brook (sta. 01403060).

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
28...	1130	1440	189	7.3	7.5	9.2	10.9	90	--	460	1300
FEB											
17...	1100	4000	173	7.1	6.0	21	11.6	92	2.4	--	>2000
MAY											
07...	1100	1640	182	7.7	14.5	4.5	10.4	100	2.2	--	440
AUG											
24...	1300	292	292	8.0	24.5	2.5	10.2	121	5.1	K1300	640

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV											
28...	60	15	5.5	10	2.3	29	28	16	.10	11	119
FEB											
17...	49	12	4.7	11	1.8	22	19	18	<.10	9.2	103
MAY											
07...	60	15	5.5	10	1.5	35	22	13	.10	8.4	134
AUG											
24...	94	24	8.2	17	2.4	57	40	24	.20	9.4	155

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
28...	35	136	55	2.1	.200	.70	.150	.120	.070	--
FEB										
17...	61	659	75	1.6	.250	1.1	.150	.060	.050	--
MAY										
07...	23	102	60	.96	.260	1.3	.110	.070	.060	3.3
AUG										
24...	23	18	61	2.2	.140	.60	.230	.200	.190	3.0

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 28...	1130	30	1	57	<.5	<1	<1	<3	3	40	4
FEB 17...	1100	<10	1	48	<.5	<1	<1	<3	3	63	1
MAY 07...	1100	30	1	41	<1	<1	<1	<3	3	120	3
AUG 24...	1300	70	2	49	<1	<1	<1	<3	5	100	2

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 28...	<4	44	.2	<10	1	<1	<1	95	<6	13
FEB 17...	<4	48	.3	<10	2	<1	<1	73	<6	17
MAY 07...	<4	42	.1	<10	4	<1	<1	93	<6	9
AUG 24...	7	28	.1	<10	1	<1	<1	190	<6	11

01403400 GREEN BROOK AT SEELEY MILLS, NJ

LOCATION.--Lat 40°39'53", long 74°24'10", Somerset County, Hydrologic Unit 02030105, on right bank at Seeley Mills, 250 ft downstream from Blue Brook, 300 ft downstream from bridge on Diamond Hill Road, and 0.5 mi northwest of Scotch Plains.

DRAINAGE AREA.--6.23 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-64, 1969: annual maximum, water years 1969-79. June 1979 to current year. Fragmentary records 1944-53 in the files of the Geological Survey. Crest-stage data 1927-38, 1958-68 in files of Union County Park Commission.

REVISED RECORDS.--WDR-NJ 81-1: 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft National Geodetic Vertical Datum of 1929. From 1944 to 1953, water-stage recorder and masonry dam about 400 ft downstream above lower Seeley Mills dam at different datum. From July 1969 to May 1979, crest-stage gage about 450 ft downstream below lower Seeley Mills dam (washed out May 29, 1968) at different datum.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--5 years, 10.6 ft^3/s, 23.13 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s Aug. 2, 1973, gage height, 16.1 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow, site and datum then in use; no flow part or all of some days in September 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1938 reached an elevation of 196.5 ft New Jersey Geological Survey datum, above lower Seeley Mills dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 4	1145	272	2.85	Apr. 16	1125	254	2.81
Dec. 14	0110	583	3.71	May 29	1615	785	4.37
Dec. 22	1210	520	3.54	June 25	0030	271	2.85
Dec. 28	1820	369	3.11	July 7	0825	*1100	5.11
Feb. 15	1045	419	3.26	July 11	1950	708	4.18
Apr. 5	0435	782	4.21	Aug. 5	1730	307	2.99

Minimum discharge, 1.00 ft^3/s part of many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.0	9.1	11	6.4	12	56	6.6	43	8.2	4.0	1.7
2	7.2	1.9	7.2	11	9.1	10	52	6.1	26	5.1	4.7	1.7
3	3.1	2.1	8.2	10	11	9.5	40	11	20	4.5	4.7	12
4	2.0	2.3	73	10	49	8.4	102	66	14	4.2	3.5	7.7
5	3.7	2.0	24	9.6	23	18	407	18	11	6.8	34	2.4
6	2.8	1.9	32	9.3	16	28	78	11	13	11	7.3	1.9
7	1.4	1.7	28	8.4	11	17	41	9.2	9.6	223	4.7	1.8
8	1.5	1.6	14	6.9	7.5	10	28	19	8.0	21	3.7	1.7
9	1.5	1.5	10	6.0	6.3	12	22	19	6.9	7.7	3.2	1.7
10	1.7	14	9.0	8.0	6.1	9.5	18	11	6.1	5.7	3.1	1.7
11	1.8	11	7.6	9.3	11	9.1	15	8.8	5.7	69	2.9	1.7
12	11	4.5	121	6.8	17	7.6	12	12	5.3	26	5.2	1.7
13	4.5	3.3	375	7.6	12	15	11	10	7.8	7.8	3.3	1.7
14	11	2.5	198	6.8	14	58	12	11	6.7	5.5	2.9	1.7
15	2.9	25	43	5.5	143	33	33	7.9	5.1	4.6	2.6	1.9
16	1.9	55	26	5.0	43	29	84	7.0	4.6	8.5	3.2	1.7
17	1.5	8.8	19	5.3	22	23	31	6.6	5.4	4.6	2.9	1.6
18	1.1	5.8	15	5.5	17	17	21	6.4	6.7	12	2.3	1.6
19	12	4.7	13	5.0	14	14	17	7.3	7.4	5.5	2.3	1.6
20	2.9	4.3	10	4.7	13	13	14	18	4.6	3.8	2.2	1.6
21	1.6	33	8.9	4.1	11	18	12	28	4.0	41	2.1	1.5
22	1.4	8.2	150	4.4	9.8	16	10	9.6	3.8	12	2.0	1.4
23	23	6.1	41	5.5	10	13	16	9.4	3.7	5.9	5.9	1.5
24	57	8.5	22	20	32	11	17	8.0	20	4.8	2.7	1.5
25	4.5	44	29	18	14	10	12	6.5	39	4.0	2.1	1.4
26	2.9	16	12	12	11	9.8	9.4	8.3	6.4	3.6	2.0	1.5
27	2.8	9.9	9.8	13	9.6	8.8	8.4	6.8	4.7	47	2.0	1.4
28	2.4	21	69	11	36	16	7.6	12	4.3	10	2.0	3.4
29	1.9	39	39	9.0	21	32	7.2	201	4.1	5.5	2.0	1.6
30	1.8	13	17	8.3	---	32	7.1	273	5.3	4.8	1.9	1.5
31	1.5	---	13	8.6	---	46	---	123	---	4.3	1.9	---
TOTAL	179.0	353.6	1452.8	265.6	605.8	565.7	1200.7	957.5	312.2	587.4	129.3	67.3
MEAN	5.77	11.8	46.9	8.57	20.9	18.2	40.0	30.9	10.4	18.9	4.17	2.26
MAX	57	55	375	20	143	58	407	273	43	223	34	12
MIN	1.1	1.5	7.2	4.1	6.1	7.6	7.1	6.1	3.7	3.6	1.9	1.4
CFSM	.93	1.89	7.53	1.38	3.35	2.92	6.42	4.96	1.67	3.03	.67	.36
IN.	1.07	2.11	8.67	1.59	3.62	3.38	7.17	5.72	1.86	3.51	.77	.40

CAL YR 1983 TOTAL 5808.16 MEAN 15.9 MAX 375 MIN .96 CFSM 2.55 IN. 34.68
WTR YR 1984 TOTAL 6677.4 MEAN 18.2 MAX 407 MIN 1.1 CFSM 2.92 IN. 39.87

01403500 GREEN BROOK AT PLAINFIELD, NJ

LOCATION.--Lat 40°36'53", long 74°25'55", Union County, Hydrologic Unit 02030105, on left bank 20 ft downstream from bridge on Sycamore Avenue in Plainfield, and 1.0 mi upstream from Stony Brook.

DRAINAGE AREA.--9.75 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to December 1984 (discontinued).

REVISED RECORDS.--WSP 921: 1938-40. WRD-NJ 1969: 1966-68. WRD-NJ 1973: 1968(M), 1969(M), 197(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 70.37 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 1.0 ft³/s, which are fair. Water diverted from Baltusrol well field by Commonwealth Water Co., and from wells in vicinity of Mountainside and Scotch Plains by Plainfield-Union Water Co., for municipal supply and from private and industrial wells in Plainfield and vicinity. Diurnal fluctuations at low flow caused by pumping from wells near brook in Plainfield. During extreme high stages there is some overflow above gage from Green Brook basin to adjacent Cedar Brook basin.

AVERAGE DISCHARGE.--46 years, 12.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,890 ft³/s July 23, 1938, gage height, 5.82 ft, from rating curve extended above 1,300 ft³/s on basis of contracted-opening measurement of peak flow (an unknown additional amount probably overflowed out of the basin); no flow part or all of some days in most years.

EXTREMES FOR CURRENT PERIOD.--Water year 1984: Peak discharges above base of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 13	1930	667	3.12	May 29	1745	*872	3.61
Dec. 22	1215	663	3.12	July 7	1100	639	3.05
Dec. 28	1900	469	2.64	July 11	2100	816	3.48
Feb. 15	1030	395	2.45	July 27	0930	408	2.48
Apr. 5	0430	*872	3.61				

Minimum discharge, 0.86 ft³/s Oct. 8-10, gage height, 0.54 ft.

OCTOBER TO DECEMBER 1984: Maximum discharge during period, 184 ft³/s Nov. 5, gage height, 1.85 ft; minimum, 0.90 ft³/s Oct. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.1	10	13	7.1	15	75	9.2	45	8.8	5.5	2.2
2	14	2.0	7.7	13	6.9	13	67	8.4	27	7.7	5.0	2.0
3	3.8	3.2	11	13	11	12	50	17	21	6.6	8.4	13
4	1.5	2.6	84	12	63	10	115	101	17	5.1	5.0	20
5	3.3	1.3	29	11	29	24	502	25	14	5.1	50	3.9
6	3.4	1.2	40	10	20	31	84	17	17	12	13	2.4
7	1.1	1.0	36	9.4	14	17	40	14	14	168	7.3	1.8
8	.93	1.1	16	7.5	10	13	28	27	11	28	5.7	1.4
9	.93	1.3	12	6.9	9.4	14	23	26	9.4	13	4.8	1.4
10	.93	27	9.8	10	8.8	11	19	15	8.0	9.2	4.6	1.4
11	.96	19	8.2	12	14	11	18	13	7.2	96	4.5	1.6
12	21	6.5	168	6.1	21	9.0	15	20	6.2	35	10	1.4
13	6.1	3.4	512	6.5	16	25	14	15	7.1	13	5.9	1.5
14	15	2.4	258	7.8	17	73	17	17	10	8.9	4.3	1.5
15	2.3	33	55	5.3	161	35	46	12	5.7	7.2	3.9	3.7
16	1.5	80	31	4.2	50	30	119	9.8	4.8	14	4.9	1.5
17	1.3	11	23	4.6	25	26	36	9.0	6.9	7.4	5.8	1.2
18	1.1	6.5	19	5.4	20	20	24	8.4	11	25	3.2	1.2
19	19	4.9	16	6.1	17	17	21	11	14	9.6	3.0	1.3
20	3.2	4.1	13	4.2	15	16	18	29	5.4	6.0	3.2	1.4
21	1.8	42	11	3.6	13	25	16	42	4.3	57	2.9	1.2
22	1.2	9.6	231	3.3	12	21	14	13	3.8	17	2.8	1.2
23	24	6.6	59	3.8	12	16	21	13	3.6	8.8	16	1.3
24	93	10	28	17	39	13	20	11	6.8	6.8	4.8	1.4
25	8.7	51	18	26	17	13	15	7.9	31	5.1	3.1	1.5
26	4.6	18	14	16	13	13	13	11	9.4	4.3	2.7	1.4
27	3.3	11	11	16	11	11	12	9.5	5.1	90	2.8	1.2
28	2.2	19	115	14	45	23	11	21	5.4	16	2.6	7.4
29	1.7	42	50	11	24	52	9.9	246	6.0	9.0	2.7	1.6
30	1.3	15	19	9.5	---	46	9.7	322	8.0	7.0	2.6	1.2
31	1.6	---	14	11	---	65	---	146	---	6.2	2.7	---
TOTAL	247.25	437.8	1928.7	299.2	721.2	720.0	1472.6	1246.2	345.1	712.8	203.7	85.2
MEAN	7.98	14.6	62.2	9.65	24.9	23.2	49.1	40.2	11.5	23.0	6.57	2.84
MAX	93	80	512	26	161	73	502	322	45	168	50	20
MIN	.93	1.0	7.7	3.3	6.9	9.0	9.7	7.9	3.6	4.3	2.6	1.2

CAL YR 1983 TOTAL 8255.89 MEAN 22.6 MAX 512 MIN .86
WTR YR 1984 TOTAL 8419.75 MEAN 23.0 MAX 512 MIN .93

01403500 GREEN BROOK AT PLAINFIELD, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	2.7	3.7									
2	6.2	3.1	3.0									
3	1.7	2.6	13									
4	1.3	2.2	8.1									
5	1.0	45	4.7									
6	1.1	11	47									
7	1.0	4.6	14									
8	1.8	3.5	7.9									
9	2.0	3.0	6.0									
10	1.2	3.1	5.7									
11	1.1	20	5.5									
12	1.1	11	4.8									
13	1.1	5.0	4.7									
14	1.0	4.5	4.1									
15	1.2	4.3	6.0									
16	1.2	4.0	4.2									
17	1.0	3.2	4.2									
18	1.2	3.2	4.0									
19	1.3	4.1	6.2									
20	1.4	2.8	5.4									
21	1.2	2.6	10									
22	12	2.4	21									
23	26	2.3	8.2									
24	5.3	2.2	6.3									
25	2.1	2.3	7.4									
26	4.7	2.1	4.8									
27	2.4	2.0	6.4									
28	2.0	2.4	11									
29	23	21	20									
30	5.5	5.3	11									
31	3.2	---	8.6									
TOTAL	123.9	187.5	276.9									
MEAN	4.00	6.25	8.93									
MAX	26	45	47									
MIN	1.0	2.0	3.0									

CAL YR 1984 TOTAL 6394.3 MEAN 17.5 MAX 502 MIN 1.0

01403535 EAST BRANCH STONY BROOK AT BEST LAKE AT WATCHUNG, NJ

LOCATION.--Lat 40°38'25", long 74°26'52", Somerset County, Hydrologic Unit 02030105, 700 ft upstream of dam on Best Lake in Watchung, 1,400 ft upstream of mouth, and 2.5 mi west of Plainfield railroad station.

DRAINAGE AREA.--1.57 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 193.87 ft National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Water-discharge records fair except those for January and periods of no gage-height record, Oct. 1 to 14, May 15 to 31, and July 6 to 25, which are poor. Records given herein represent flow over dam and leakage.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 484 ft³/s July 7, 1984, gage height, 2.56 ft; no flow part or all of many days in 1980 and 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 3, 1973, reached a stage of 5.4 ft present datum, from floodmarks, discharge, 2,840 ft³/s by computation of flow over dam, embankment and road.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 12	1500	139	1.79	Apr. 5	0405	176	1.89
Dec. 13	0515	124	1.75	May 29	Unknown	161	1.85
Dec. 22	1210	150	1.82	July 7	Unknown	*484	2.56
Feb. 15	1105	106	1.70				

Minimum discharge, 0.11 ft³/s June 12, gage height, 1.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.40	2.7	2.8	1.9	3.6	15	1.4	9.6	1.7	.97	.31
2	.55	.69	2.2	2.8	1.9	3.2	13	1.2	6.6	.74	.77	.27
3	.45	.93	2.5	2.7	2.9	2.7	9.7	1.9	5.0	.52	.77	.94
4	.28	1.3	21	2.7	14	2.4	20	14	4.3	.57	.65	1.5
5	.25	1.2	5.9	2.7	6.9	5.1	79	4.8	3.7	.43	4.4	.55
6	.25	1.2	10	2.4	5.1	7.9	14	3.4	3.4	2.9	1.9	.37
7	.21	.47	7.6	2.2	3.6	4.3	9.3	3.0	3.0	74	1.3	.36
8	.16	.47	4.0	1.9	2.8	3.3	7.0	5.5	2.5	3.9	.98	.33
9	.24	.47	3.4	1.8	2.4	3.1	5.9	5.6	2.1	2.2	.98	.27
10	.23	5.3	3.0	2.4	1.9	2.7	5.2	3.5	1.7	1.8	.98	.32
11	.20	4.5	2.4	2.4	3.4	2.7	4.5	3.0	1.6	5.9	.80	.36
12	2.0	1.3	29	1.9	5.4	2.3	4.3	4.1	1.1	2.9	1.4	.27
13	1.4	.68	70	1.7	3.8	5.4	3.6	3.6	1.1	1.7	.95	.30
14	.98	.60	28	1.5	4.3	18	4.1	3.6	1.0	1.5	.77	.35
15	.16	8.8	8.7	1.5	31	9.5	9.6	2.7	.69	1.2	.75	.35
16	.20	17	6.2	1.4	10	8.8	19	3.3	.57	1.5	.60	.32
17	.27	2.8	5.0	1.3	6.8	6.8	7.3	2.2	.73	1.1	.67	.31
18	.22	1.6	4.3	1.3	5.5	5.0	5.4	2.6	1.3	2.9	.47	.27
19	2.3	1.1	3.4	1.3	4.9	4.3	4.6	3.0	1.6	1.5	.52	.27
20	.38	.99	3.2	1.2	4.3	3.9	4.2	6.0	.64	1.0	.51	.27
21	.20	11	2.9	1.2	3.7	5.3	3.5	9.3	.42	5.3	.47	.27
22	.20	2.7	35	1.1	3.3	4.4	3.2	3.6	.35	1.9	.47	.27
23	5.1	2.0	8.0	1.1	3.3	3.7	4.5	3.6	.27	1.3	1.6	.31
24	15	2.9	5.1	5.9	8.4	3.2	4.5	3.3	3.3	1.1	.88	.36
25	1.2	16	3.5	7.0	4.2	3.2	3.1	2.7	5.8	.77	.47	.37
26	.57	4.8	3.1	5.0	3.2	2.8	2.6	2.9	.80	.60	.47	.46
27	.30	3.3	2.7	4.8	3.1	2.7	2.4	2.8	.54	12	.38	.23
28	.22	7.0	16	4.0	9.3	4.6	2.1	3.9	.46	3.0	.43	.41
29	.14	10	7.3	3.6	5.4	9.7	1.8	51	.48	1.9	.37	.67
30	.15	3.7	4.0	3.3	---	9.7	1.8	52	.73	1.5	.36	.42
31	.20	---	3.2	2.8	---	14	---	25	---	1.1	.36	---
TOTAL	34.51	115.20	313.3	79.7	166.7	168.3	274.2	238.5	65.38	140.43	27.40	12.06
MEAN	1.11	3.84	10.1	2.57	5.75	5.43	9.14	7.69	2.18	4.53	.88	.40
MAX	15	17	70	7.0	31	18	79	52	9.6	74	4.4	1.5
MIN	.14	.40	2.2	1.1	1.9	2.3	1.8	1.2	.27	.43	.36	.23
CFSM	.71	2.45	6.43	1.64	3.66	3.46	5.82	4.90	1.39	2.89	.56	.25
IN.	.82	2.73	7.42	1.89	3.95	3.99	6.50	5.65	1.55	3.33	.65	.29

CAL YR 1983 TOTAL 1388.96 MEAN 3.81 MAX 70 MIN .04 CFSM 2.43 IN. 32.91
WTR YR 1984 TOTAL 1635.68 MEAN 4.47 MAX 79 MIN .14 CFSM 2.85 IN. 38.76

01403540 STONY BROOK AT WATCHUNG, NJ

LOCATION.--Lat 40°38'12", long 74°27'06", Somerset County, Hydrologic Unit 02030105, on right bank at Watchung Borough Administration Building, 150 ft downstream from Watchung Avenue Bridge, and 2.9 mi upstream from confluence with Green Brook.

DRAINAGE AREA.--5.51 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 172.24 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for January and period of no gage-height record, Sept. 4 to 6, which are fair. Occasional regulation from Watchung and Best Lakes directly upstream from station.

AVERAGE DISCHARGE.--10 years, 10.9 ft³/s, 26.87 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft³/s July 14, 1975, gage height, 10.40 ft, from rating curve extended above 500 ft³/s on basis of slope-area measurements of peak flow; no flow all or part of Sept. 13, 18-20, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1973, reached a stage of 14.5 ft, from floodmark, discharge, 11,400 ft³/s, from slope-area measurements of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s, revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	0245	368	4.12	Dec. 28	1825	378	4.16
Dec. 4	1140	319	3.91	Feb. 15	1040	400	4.25
Dec. 12	1505	535	4.75	Apr. 5	0500	780	5.44
Dec. 13	0510	582	4.91	May 29	1630	1240	6.40
Dec. 22	1210	579	4.90	July 7	0825	*2200	7.87

Minimum discharge, 0.51 ft³/s Sept. 22, 23, gage height, 0.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.7	8.4	8.8	5.4	12	52	22	35	7.8	4.1	1.2
2	2.2	1.6	6.7	8.4	5.2	9.9	45	12	22	5.6	3.7	1.1
3	1.8	1.7	7.5	7.8	6.8	8.8	34	14	31	4.6	3.6	1.1
4	1.1	1.9	75	7.4	45	7.8	68	45	12	4.3	3.3	4.3
5	1.0	1.6	20	7.0	21	16	344	19	4.8	5.5	11	1.9
6	1.0	1.5	33	6.7	16	27	53	8.7	4.4	11	5.8	1.4
7	.85	1.4	26	6.1	11	14	35	8.4	5.7	266	3.8	1.3
8	.66	1.3	13	5.3	8.6	11	26	12	6.3	14	3.2	1.2
9	.98	1.2	10	4.8	7.7	11	22	18	5.4	8.5	2.9	1.1
10	.94	13	9.3	5.7	7.7	9.0	19	12	4.7	6.9	2.7	1.1
11	.76	13	7.7	7.3	14	8.4	17	11	4.4	21	2.6	1.2
12	3.8	5.0	104	5.0	21	7.1	15	15	3.6	11	4.2	1.2
13	3.0	3.6	298	4.8	14	16	13	13	3.6	6.5	4.8	.99
14	7.8	3.1	94	4.6	16	60	14	13	3.7	5.4	3.1	.93
15	2.0	25	30	4.4	119	32	34	9.8	3.2	4.6	2.5	1.2
16	1.3	54	22	4.3	31	30	67	11	2.8	5.5	2.2	1.2
17	1.2	9.0	17	4.1	20	23	26	7.1	3.0	4.5	2.5	1.0
18	1.2	5.5	14	4.0	16	17	19	8.7	4.6	11	1.8	.91
19	8.2	4.6	12	3.9	14	15	17	10	7.0	5.6	1.7	.85
20	2.9	4.1	9.6	3.7	13	13	16	20	3.3	4.1	1.7	.87
21	1.7	55	8.0	3.5	11	20	14	31	2.6	19	1.4	.80
22	1.4	9.5	128	3.4	9.6	16	12	12	2.3	7.3	1.3	.67
23	16	6.3	27	3.3	9.3	13	16	12	2.1	5.0	4.6	.72
24	55	8.6	17	10	29	11	17	11	13	4.2	4.0	.82
25	5.9	50	15	18	14	9.8	13	9.0	24	3.5	2.0	.78
26	3.7	16	15	11	11	9.4	12	9.7	5.9	3.0	1.7	.86
27	2.9	9.9	12	9.8	9.1	8.0	11	9.5	4.8	39	1.5	.75
28	2.4	21	64	8.7	31	16	10	13	4.3	8.5	1.4	2.2
29	2.0	36	25	6.7	18	35	9.9	213	4.4	6.2	1.3	1.7
30	1.7	12	13	6.1	---	34	9.6	214	4.8	5.4	1.4	1.2
31	1.4	---	10	6.1	---	48	---	84	---	4.7	1.5	---
TOTAL	138.79	378.1	1151.2	200.7	554.4	568.2	1060.5	907.9	238.7	519.2	93.3	36.55
MEAN	4.48	12.6	37.1	6.47	19.1	18.3	35.4	29.3	7.96	16.7	3.01	1.22
MAX	55	55	298	18	119	60	344	214	35	266	11	4.3
MIN	.66	1.2	6.7	3.3	5.2	7.1	9.6	7.1	2.1	3.0	1.3	.67
CFSM	.81	2.29	6.73	1.17	3.47	3.32	6.42	5.32	1.44	3.03	.55	.22
IN.	.94	2.55	7.77	1.35	3.74	3.84	7.16	6.13	1.61	3.51	.63	.25

CAL YR 1983 TOTAL 5075.80 MEAN 13.9 MAX 298 MIN .29 CFSM 2.52 IN. 34.27
WTR YR 1984 TOTAL 5847.54 MEAN 16.0 MAX 344 MIN .66 CFSM 2.90 IN. 39.48

01405000 LAWRENCE BROOK AT FARRINGTON DAM, NJ

LOCATION.--Lat 40°27'00", long 74°27'05", Middlesex County, Hydrologic Unit 02030105, on left bank 300 ft upstream from Farrington Dam, 0.7 mi southwest of Milltown, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--34.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1927 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1959(P).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 25.8 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Records given herein include flow over dam and through blowoff gates. No gate opening during the year. Flow regulated by Farrington Lake, capacity, 655,250,000 gal.

COOPERATION.--Water-stage recorder inspected by and records of gate openings furnished by employees of City of New Brunswick.

AVERAGE DISCHARGE.--57 years, 39.0 ft^3/s, 15.40 in/yr, adjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,920 ft^3/s July 21, 1975, gage height, 26.93 ft, from rating curve extended above 1,100 ft^3/s on basis of weir formula; no flow at times when gates in dam were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 13	2400	*1150	25.68	May 30	0900	1040	25.63
Dec. 22	1800	600	25.37	July 7	1500	629	25.39
Apr. 5	1200	629	25.39	July 27	2100	480	-

Minimum daily discharge, 3.7 ft^3/s Oct. 1.

CORRECTIONS.--The adjusted annual mean, and adjusted annual runoff in cubic feet per square mile and inches for water year 1983 are 58.5, 1.70 and 23.18 respectively; the previously published figures are in error and supersede those published in the report for 1983.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	13	39	42	44	70	129	31	138	60	29	15
2	5.1	13	32	38	38	52	97	30	96	30	25	14
3	8.5	13	41	37	42	47	84	47	70	32	22	16
4	10	15	170	36	122	43	80	141	58	22	20	43
5	11	15	134	37	106	60	428	103	44	19	93	27
6	19	14	98	37	87	121	163	56	40	54	131	19
7	16	14	107	37	62	84	113	46	34	309	53	17
8	11	14	60	33	48	59	86	72	28	134	36	16
9	7.9	14	48	29	42	57	66	108	24	62	27	15
10	6.8	41	41	31	41	49	57	60	22	40	26	15
11	6.2	108	35	42	45	46	52	46	19	35	24	14
12	16	45	125	34	54	45	48	38	18	44	47	15
13	33	29	603	29	54	74	46	35	18	29	54	14
14	31	24	447	32	53	274	53	35	20	23	34	15
15	18	35	135	30	174	149	107	31	18	19	26	47
16	14	155	97	28	136	118	165	28	17	30	22	25
17	11	68	70	27	94	97	125	27	19	25	20	17
18	9.0	41	56	29	70	78	89	26	28	43	19	17
19	22	34	50	31	57	65	78	28	24	50	18	15
20	22	29	45	28	51	57	78	28	19	22	18	15
21	15	117	38	26	44	63	59	44	17	78	18	14
22	12	64	267	25	42	75	52	29	16	77	17	14
23	18	42	161	23	41	55	62	31	15	34	28	13
24	138	43	99	35	117	49	84	45	16	24	24	13
25	64	127	63	82	83	48	59	27	48	21	19	13
26	32	102	49	92	57	49	51	28	22	18	18	13
27	24	57	43	88	48	45	46	63	17	197	17	11
28	20	51	91	77	114	75	39	40	15	180	17	15
29	16	86	161	56	122	322	36	186	18	80	16	14
30	14	51	83	48	---	236	34	685	92	50	16	10
31	14	---	52	50	---	163	---	321	---	39	16	---
TOTAL	648.2	1474	3540	1269	2088	2825	2666	2515	1030	1880	950	521
MEAN	20.9	49.1	114	40.9	72.0	91.1	88.9	81.1	34.3	60.6	30.6	17.4
MAX	138	155	603	92	174	322	428	685	138	309	131	47
MIN	3.7	13	32	23	38	43	34	26	15	18	16	10
(†)	+1.2	+0.4	+0.1	0	+0.3	+0.5	-0.9	+1.1	-0.6	-0.5	-0.2	0
MEAN‡	22.1	49.5	114	40.9	72.3	91.6	88.0	82.2	33.7	60.1	30.4	17.4
CFSM‡	0.64	1.44	3.31	1.19	2.10	2.66	2.56	2.39	.98	1.75	.88	.51
IN.‡	0.74	1.61	3.83	1.37	2.27	3.07	2.85	2.76	1.09	2.01	1.02	.56

CAL YR 1983 TOTAL 17475.5 MEAN 47.9 MAX 603 MIN 2.2 MEAN‡ 47.9 CFSM‡ 1.39 IN.‡ 18.92
WTR YR 1984 TOTAL 21406.2 MEAN 58.5 MAX 685 MIN 3.7 MEAN‡ 58.4 CFSM‡ 1.70 IN.‡ 23.18

† Change in contents, in cubic feet per second, in Farrington Lake.
‡ Adjusted for change in contents.

01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°22'55", Middlesex County, Hydrologic Unit 02030105, at bridge on Mundy Avenue in Spotswood, 0.2 mi upstream from mouth, 0.5 mi east of De Voe Lake dam, and 3.4 mi southeast of Tanners Corners.

DRAINAGE AREA.--44.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 18...	1050	68	300	5.3	1.0	15.0	--	E1.7	--	--
MAR 15...	1140	670	--	5.4	2.0	10.6	--	<1.0	90	34
MAY 15...	0940	80	188	5.8	13.0	9.4	--	<1.1	20	79
JUL 10...	1240	89	--	4.2	19.0	7.8	--	E.6	110	1600
AUG 06...	0930	298	120	5.7	21.5	6.5	73	E1.6	16000	>24000
SEP 17...	1030	50	190	7.0	17.0	9.2	93	<1.2	790	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 18...	59	17	4.0	24	2.9	5.0	52	40	.20
MAR 15...	28	7.6	2.1	11	1.8	2.0	27	18	<.10
MAY 15...	46	13	3.3	12	2.6	2.0	39	19	.20
JUL 10...	45	13	3.0	9.8	2.8	3.0	38	15	.10
AUG 06...	31	9.0	2.0	5.7	2.7	3.0	27	10	.10
SEP 17...	44	13	2.9	11	4.7	8.0	33	19	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 18...	11	179	.009	3.0	.230	.24	3.3	.070	2.2
MAR 15...	4.6	89	.010	.79	.190	.39	1.2	.100	3.2
MAY 15...	8.1	150	.008	2.2	.250	.86	3.1	.070	2.2
JUL 10...	9.7	127	.006	2.0	.180	.69	2.7	.090	3.2
AUG 06...	6.5	85	.023	.93	.120	1.1	2.0	.370	7.0
SEP 17...	8.2	108	.008	.98	.110	.33	1.3	.080	3.4

01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
SEP									
17...	1030	<.5	<10	1	<10	50	1	<10	12

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
SEP								
17...	2400	24	120	<.1	20	<1	30	<1

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ

LOCATION.--Lat 40°17'46", long 74°23'53", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.6 mi north of Manalapan, 3.1 mi southwest of Matchaponix, 3.3 mi downstream of Still House Brook, and 4.1 mi northeast of Applegarth.

DRAINAGE AREA.--20.9 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 18...	0940	15	140	6.2	.0	13.8	--	3.0	--	--
MAR 15...	1040	48	--	6.3	4.0	12.8	--	E1.3	490	240
MAY 15...	1300	24	110	6.3	12.5	10.5	--	<1.0	50	49
JUL 10...	1350	20	112	5.7	20.0	8.7	--	E1.1	330	1600
AUG 06...	1130	38	108	6.5	23.5	8.5	100	E1.6	16000	>2400
SEP 17...	1330	11	120	7.0	15.0	9.8	95	<1.2	490	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 18...	37	8.2	3.9	6.8	2.4	7.0	25	15	.20
MAR 15...	25	5.9	2.5	5.3	2.0	2.0	20	10	<.10
MAY 15...	30	6.8	3.2	4.7	1.9	5.0	20	12	.20
JUL 10...	30	7.0	3.0	4.3	2.3	8.0	19	9.4	.20
AUG 06...	29	6.7	3.0	4.3	2.5	9.0	17	11	.20
SEP 17...	34	7.8	3.6	5.1	2.9	10	18	12	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 18...	10	89	.011	1.6	.110	.15	1.8	.070	1.7
MAR 15...	6.3	61	.009	.98	.120	.42	1.4	.120	3.1
MAY 15...	7.4	63	.010	.99	.220	.72	1.7	.080	2.8
JUL 10...	8.7	74	.011	.81	.100	.59	1.4	.140	4.9
AUG 06...	7.4	74	.019	.76	.090	.76	1.5	.180	4.7
SEP 17...	8.1	71	.008	1.7	.170	.51	2.2	.090	2.4

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT. IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY											
15...	1300	<.5	--	--	30	1	--	<10	20	1	--
SEP											
17...	1330	--	.2	3.9	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY											
15...	10	--	--	1	--	2500	--	3	--	60	--
SEP											
17...	--	9	<10	--	<1	--	28000	--	10	--	70

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
15...	<.1	--	7	--	<1	--	30	--	<1	--	--
SEP											
17...	--	<.01	--	<10	--	<1	--	40	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
17...	<.1	<1.0	3.6	1.6	2.6	<.1	.1	<.1	<.1	<.1	.2

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
17...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°23'27", Middlesex County, Hydrologic Unit 02030105, on right bank of DeVoe Lake Dam in Spotswood, 0.1 mi upstream from Cedar Brook, and 0.6 mi upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1957 to current year.

REVISED RECORDS.--WSP 1722: 1957-60.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Duhernal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

REMARKS.--Water-discharge records good. Discharge given herein include flow over dam and through waste gates. Waste gates open Dec. 4-11, 13-16, Mar. 12-13, Mar. 29-Apr. 2, Apr. 6-9, and May 30-June 4. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake.

AVERAGE DISCHARGE.--27 years, 65.6 ft^3/s, 21.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft^3/s May 30, 1968, elevation, 19.90 ft, waste gates open; no flow part or all of some days in many years when gates were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft^3/s May 31, elevation, 19.62 ft, waste gage open; no flow part of Dec. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	31	64	67	71	148	196	57	720	116	48	35
2	39	31	57	61	56	86	111	53	302	92	43	33
3	78	31	62	58	59	70	85	53	122	47	46	35
4	45	35	128	58	132	64	95	107	93	42	44	58
5	35	36	273	61	132	69	269	130	80	39	65	58
6	47	34	206	62	116	144	668	88	64	142	163	41
7	40	32	138	61	87	133	346	67	61	247	101	35
8	30	31	95	56	65	88	134	75	58	427	57	32
9	28	31	66	50	58	75	100	197	51	212	45	30
10	26	45	55	50	54	70	80	174	47	72	42	29
11	24	189	47	63	58	68	80	90	44	63	41	29
12	33	188	95	58	72	66	79	71	41	65	81	28
13	58	85	321	52	70	78	73	78	39	51	382	28
14	53	54	707	53	69	285	73	77	41	44	268	27
15	44	55	466	52	144	472	121	69	40	36	88	41
16	35	185	137	44	246	194	190	59	37	35	65	56
17	30	179	103	48	139	122	278	44	37	39	54	40
18	29	84	84	47	94	96	156	46	52	47	48	32
19	36	62	74	49	79	81	108	48	58	68	47	30
20	38	54	67	44	71	74	91	51	50	54	47	29
21	33	123	58	44	65	75	80	60	43	63	46	28
22	29	154	134	51	60	95	70	51	39	143	46	26
23	33	86	293	57	59	75	73	56	36	111	48	25
24	126	69	189	54	159	63	95	210	35	61	48	25
25	157	150	98	95	171	62	85	165	43	48	46	25
26	63	257	121	147	96	74	73	76	40	42	44	25
27	50	144	73	146	72	71	65	103	34	132	43	24
28	42	85	80	131	111	81	61	85	31	291	40	31
29	37	93	240	89	249	283	60	254	43	150	40	38
30	34	80	224	70	---	733	59	712	75	64	40	32
31	32	---	87	72	---	505	---	1190	---	51	37	---
TOTAL	1420	2713	4842	2050	2914	4600	4054	4596	2456	3094	2253	1005
MEAN	45.8	90.4	156	66.1	100	148	135	148	81.9	99.8	72.7	33.5
MAX	157	257	707	147	249	733	668	1190	720	427	382	58
MIN	24	31	47	44	54	62	59	44	31	35	37	24
CFSM	1.13	2.22	3.83	1.62	2.46	3.64	3.32	3.64	2.01	2.45	1.79	.82
IN.	1.30	2.48	4.43	1.87	2.66	4.20	3.71	4.20	2.24	2.83	2.06	.92

CAL YR 1983 TOTAL 26874 MEAN 73.6 MAX 707 MIN 14 CFSM 1.81 IN. 24.56
WTR YR 1984 TOTAL 35997 MEAN 98.4 MAX 1190 MIN 24 CFSM 2.42 IN. 32.90

01405440 MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'26", long 74°23'26", Middlesex County, Hydrologic Unit 02030105, at bridge on Bridge Street in Spotswood, 150 ft downstream from Cedar Brook, and 400 ft below DeVoe Lake Dam.

DRAINAGE AREA.--43.9 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 23...	1120	67	152	5.7	.5	12.4	--	E1.7	<20	49
MAR 15...	1300	479	120	4.8	3.5	13.2	--	E1.5	50	240
MAY 15...	1050	76	122	5.1	14.0	9.3	--	<.9	50	240
JUL 10...	1140	87	122	4.4	20.0	7.9	--	E1.1	210	130
AUG 06...	1030	--	114	5.3	22.5	7.2	82	E1.4	1700	>2400
SEP 17...	1140	--	125	6.6	16.0	8.8	87	<1.2	<20	110

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 23...	32	6.8	3.6	8.8	2.6	5.0	29	15	.10
MAR 15...	21	5.1	2.1	5.8	1.9	<1.0	20	11	<.10
MAY 15...	28	6.3	3.0	5.7	1.8	<1.0	26	11	.10
JUL 10...	25	5.8	2.5	5.6	2.2	<1.0	25	9.7	<.10
AUG 06...	27	6.2	2.8	5.1	2.2	2.0	24	11	.10
SEP 17...	30	6.4	3.3	6.4	2.6	6.0	20	14	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	8.4	88	.014	1.3	.500	E.81	--	.050	2.4
MAR 15...	4.4	61	.009	.79	.200	.53	1.3	.120	3.4
MAY 15...	6.3	62	.005	.74	.250	.44	1.2	.090	3.1
JUL 10...	7.0	75	.005	.58	.240	.83	1.4	.090	6.4
AUG 06...	4.8	74	.010	.62	.150	.84	1.5	.110	4.8
SEP 17...	3.2	82	.006	.80	.230	.46	1.3	.070	2.7

01405440 MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY									
15...	1050	<.5	370	1	<10	20	1	10	2
SEP									
17...	1140	<.5	<10	1	<10	20	1	10	4

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
15...	2500	12	90	<.1	7	<1	40	<1
SEP								
17...	1400	9	20	<.1	5	<1	30	<1

01405500 SOUTH RIVER AT OLD BRIDGE, NJ

LOCATION.--Lat 40°24'22", long 74°22'08", Middlesex County, Hydrologic Unit 02030105, on right abutment of Duhernal Dam, 0.6 mi south of Old Bridge, 2.3 mi upstream from Deep Run, and 9.1 mi upstream from mouth.

DRAINAGE AREA.--94.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WSP 1902: 1957. WDR NJ-82-1: 1975-80(P).

GAGE--Water-stage recorder above concrete dam. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. The flow past this station is affected by pumpage from well fields for industrial use by Duhernal Water System. Some regulation by Duhernal Lake, capacity, 138,000,000 gal, Lake Manalapan, DeVoe Lake, and several small ponds in headwater tributaries.

AVERAGE DISCHARGE.--45 years, 143 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft^3/s Sept. 15, 1944, elevation, 11.71 ft, waste gates open; maximum gage height, 11.73 ft Aug. 28, 1971; no flow on days when waste gates were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Elevation (ft)	Date	Time	Discharge (ft^3/s)	Elevation (ft)
Nov. 26	1500	715	10.50	Apr. 6	0400	2220	11.11
Dec. 5	1900	903	10.60	Apr. 17	1100	824	10.56
Dec. 14	0800	2340	11.15	May 9	2200	715	10.50
Dec. 23	1600	903	10.60	May 24	2400	768	10.53
Dec. 29	2300	843	10.57	May 30	2000	*3820	11.59
Feb. 29	1600	750	10.54	July 8	0700	1350	10.80
Mar. 15	0100	1560	10.88	July 28	1800	1010	10.65
Mar. 30	0600	2570	11.22				

Minimum discharge, 42 ft^3/s Oct. 11, gage height, 9.70 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	62	172	175	176	357	562	176	1710	305	156	58
2	104	61	153	163	140	205	338	169	659	219	141	54
3	191	61	165	161	146	178	259	169	347	153	170	56
4	121	67	307	160	291	164	252	304	271	160	154	156
5	79	76	762	164	299	173	954	330	230	124	248	170
6	119	69	551	166	280	356	1820	234	203	363	522	105
7	113	63	377	164	206	309	746	197	184	665	272	79
8	67	59	265	154	163	209	347	214	174	1200	169	69
9	53	57	198	141	148	186	275	542	162	461	140	63
10	47	83	174	137	138	178	244	475	149	210	129	62
11	44	411	156	175	147	170	229	250	136	183	118	61
12	62	448	233	162	176	170	221	210	122	216	160	60
13	186	219	932	147	171	198	211	224	114	169	557	60
14	169	145	2120	146	171	884	211	217	118	136	417	56
15	119	139	1160	144	319	1290	344	196	116	110	194	99
16	79	414	405	124	615	531	549	176	104	103	157	194
17	63	461	262	127	325	318	736	158	101	108	131	118
18	57	215	222	125	224	257	397	149	142	136	114	81
19	72	164	202	131	193	225	293	157	160	217	99	68
20	96	142	185	118	176	209	257	164	135	151	94	63
21	77	292	163	114	162	207	234	186	111	167	90	59
22	61	376	315	106	152	255	215	169	99	414	82	55
23	64	212	798	106	146	212	223	167	90	328	87	53
24	288	176	478	114	372	184	278	548	86	175	89	53
25	406	364	360	238	434	180	245	472	138	139	84	52
26	188	654	190	327	228	220	211	218	136	111	75	51
27	137	354	158	309	179	200	197	319	97	318	68	49
28	107	219	201	287	267	219	188	254	83	860	65	63
29	84	236	645	204	659	1020	183	769	150	454	61	97
30	72	214	573	172	---	2230	181	2710	228	210	62	79
31	65	---	220	179	---	1230	---	3090	---	174	62	---
TOTAL	3485	6513	13102	5140	7103	12724	11400	13613	6555	8739	4967	2343
MEAN	112	217	423	166	245	410	380	439	219	282	160	78.1
MAX	406	654	2120	327	659	2230	1820	3090	1710	1200	557	194
MIN	44	57	153	106	138	164	181	149	83	103	61	49

CAL YR 1983 TOTAL 72856 MEAN 200 MAX 2120 MIN 27
WTR YR 1984 TOTAL 95684 MEAN 261 MAX 3090 MIN 44

RESERVOIRS IN RARITAN RIVER BASIN

01396790 **SPRUCE RUN RESERVOIR.**--Lat 40°38'30", long 74°55'19", Hunterdon County, Hydrologic Unit 02030105, at dam on Spruce Run, 0.5 mi north of Clinton, and 0.6 mi upstream from mouth. DRAINAGE AREA, 41.3 mi^2. PERIOD OF RECORD, November 1963 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with concrete spillway; dam completed in October 1963 with crest of spillway at elevation 273.00 ft. Usable capacity, 11,000,000,000 gal. Dead storage 300,000 gal. Reservoir used for water supply and recreation. Outflow mostly regulated by gates. Water is released to maintain minimum flow on the South Branch Raritan River and, at times, for municipal supply. Records given herein represent usable capacity. Records furnished by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 11,640,000,000 gal Apr. 2, 1970, elevation, 274.38 ft; minimum observed, 3,100,000,000 gal Oct. 18, 1983, elevation, 246.68 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 11,550,000,000 gal July 7, elevation, 274.20 ft; minimum observed, 3,190,000,000 gal Oct. 18, elevation, 246.68 ft.

REVISIONS: The maximum contents for period of record has been corrected to 11,640,000,000 gal Apr. 2, 1970, elevation 274.38 ft. These figures supersede those published in previous reports.

01397050 **ROUND VALLEY RESERVOIR.**--Lat 40°36'39", long 74°50'42", Hunterdon County, Hydrologic Unit 02030105, at main dam on Prescott Brook, 1.8 mi south of Lebanon, 3.2 mi upstream from mouth, and 4.5 mi west of Whitehouse. DRAINAGE AREA, 5.7 mi^2. PERIOD OF RECORD, March 1966 to current year. Nonrecording gage read daily. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam at main dam on Prescott Brook and two dams on South Branch Rockaway River at Lebanon; storage began in March 1966. Capacity at spillway level, 55,000,000,000 gal, elevation, 385.00 ft. Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see following page). Outflow is controlled by operation of gates in pipe in dams. Water is released into South Branch Rockaway Creek and Prescott Brook. Records furnished by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 55,400,000,000 gal June 15, 1975, elevation, 385.63 ft; minimum observed (after first filling), 37,100,000,000 gal Feb. 9, 1981, elevation, 361.30 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 48,600,000,000 gal July 7, elevation, 376.40 ft; minimum observed, 40,500,000,000 gal Nov. 10, elevation, 365.90 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation* (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation* (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01396790	SPRUCE RUN RESERVOIR		01397050	ROUND VALLEY RESERVOIR	
Sept. 30	250.01	3,800	-	366.03	40,600	-
Oct. 31	248.43	3,500	-15.0	365.99	40,600	0
Nov. 30	252.15	4,300	+41.3	367.13	41,400	+41.2
Dec. 31	263.43	7,400	+155	369.93	43,600	+110
CAL YR 1983	-	-	-12.3	-	-	+141
Jan. 31	266.37	8,400	+49.9	371.92	45,100	+74.9
Feb. 29	272.02	10,580	+116	373.35	46,300	+64.0
Mar. 31	273.05	11,060	+24.0	374.00	46,800	+25.0
Apr. 30	272.73	10,890	-8.8	374.67	47,300	-25.0
May 31	273.42	11,220	+16.5	375.58	48,080	+38.9
June 30	273.03	11,030	-9.8	375.67	48,140	+3.1
July 31	273.01	11,010	-1.0	375.34	47,840	-15.0
Aug. 31	272.10	10,620	-19.5	375.09	47,690	-7.5
Sept. 30	268.32	9,150	-75.8	374.83	47,430	-13.4
WTR YR 1984	-	-	+22.6	-	-	+28.9

* Elevation at 0800 on first day of following month.

DIVERSIONS IN RARITAN RIVER BASIN

01396920 Water is diverted 4.0 mi upstream from the gaging station on South Branch Raritan River at Stanton (see sta 01397000), at the Hamden Pumping Station, for storage in Round Valley Reservoir. Records furnished by New Jersey Water Supply Authority.

01400490 Johns-Manville Products Corporation diverts water 1,500 ft upstream from the gaging station on Raritan River at Manville (sta 01400500) for industrial processes and cooling purposes. The effluent is then mixed with that from the Borough of Manville sewage treatment plant and discharged into the Raritan River 600 ft downstream from the Millstone River. Records furnished by the Johns-Manville Products Corporation.

CORRECTION: The diversion figures for water year 1983 as published in WDR NJ-83-1 were found to be in error. The Corrected figures are published in the table below.

01400509 Elizabethtown Water Company diverts water from the Raritan and Millstone Rivers just upstream from the mouth of the Millstone River. Records given herein represent the total diversion from both rivers. Records furnished by the Elizabethtown Water Company.

01400836 Water is diverted from Carnegie Lake (Millstone River) to the Delaware and Raritan Canal at the aqueduct 2.3 mi upstream from the gaging station on the Delaware and Raritan Canal (sta 01460500). Records furnished by New Jersey Water Supply Authority.

01402910 Water is diverted from the Raritan River just below the Millstone River to the Delaware and Raritan Canal at Ten Mile Lock for municipal supply. Records furnished by the New Jersey Water Supply Authority.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	HAMDEN PUMPING STATION 01396920	JOHNS-MANVILLE PRODUCTS CORPORATION 01400490		ELIZABETHTOWN WATER COMPANY 01400509	CARNEGIE LAKE 01400836	TEN MILE LOCK DIVERSION 01402910
October.........	0	a3.3	3.5	149	0.17	0.45
November.........	1.5	a3.7	3.3	136	0	0
December........	3.7	a4.9	3.3	132	0	0
CAL YR 1983...	6.8		2.7	141	1.8	11.9
January..........	3.2	a3.2	3.6	133	0	0
February.........	1.7	a3.4	3.2	138	0	0
March...........	0	a3.6	2.8	141	.12	0
April...........	0	a3.2	5.4	137	.51	0
May.............	0	a3.9	4.1	136	1.4	0
June............	0	a4.1	4.7	161	1.6	1.1
July............	0	a5.6	3.8	103	2.7	.09
August..........	0	a5.1	4.1	157	2.1	1.1
September.......	0	a4.6	3.6	156	.94	2.2
WTR YR 1984...	0.84		3.8	140	.80	.41

a Corrected figures for water year 1983.

01407500 SWIMMING RIVER NEAR RED BANK, NJ

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County, Hydrologic Unit 02030104, on left bank 50 ft upstream from spillway at Swimming River Reservoir, 3.3 mi southwest of Red Bank, and 4.8 mi upstream from mouth. Water-quality samples collected at bridge on Swimming River Road, 800 ft downstream from gaging station.

DRAINAGE AREA.--49.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1922 to current year.

REVISED RECORDS.--WDR NJ-83-1. Drainage area. WSP 891: 1939.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 30.00 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 19, 1962, at site 800 ft upstream at datum 17.67 ft lower. Jan. 19 to Mar. 30, 1962, nonrecording gage, 700 ft upstream at datum 13.87 ft lower.

REMARKS.--Water-discharge records fair. Records given herein represent flow over spillway and flow or leakage through blowoff gates (gates open Nov. 30 to Mar. 6). Diversion above station for municipal supply. Flow regulated by Swimming River Reservoir.

COOPERATION.--Water-stage recorder inspected by and record of diversion furnished by Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--62 years, 80.8 ft^3/s, 22.64 in/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,910 ft^3/s Oct. 27, 1943, gage height, 8.96 ft, site and datum then in use, from rating curve extended above 1,000 ft^3/s on basis of weir formula; no flow some days in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in July 1919 reached a stage of 7.84 ft (site and datum then in use), from floodmark, discharge about 11,800 ft^3/s.

EXTREMES OF CURRENT YEAR.--Maximum discharge, 2,500 ft^3/s Mar. 29, gage height, 6.50 ft; no flow, Oct. 1 to Nov. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	30	47	49	78	238	73	353	148	34	.91
2	.00	.00	26	51	40	55	156	69	235	69	29	.38
3	.00	.00	30	47	44	49	125	82	202	52	30	.20
4	.00	.00	211	48	101	45	128	160	166	75	29	7.4
5	.00	.00	196	52	97	66	1210	104	125	44	167	14
6	.00	.00	68	49	95	139	612	76	111	263	162	13
7	.00	.00	56	47	58	82	239	72	100	255	56	11
8	.00	.00	28	51	44	59	163	95	84	177	36	8.8
9	.00	.00	26	39	41	73	133	294	69	69	29	7.3
10	.00	.00	26	43	41	55	121	96	49	51	28	5.8
11	.00	.01	27	75	47	48	113	68	47	47	26	5.0
12	.00	.55	124	44	50	43	107	55	40	74	55	4.5
13	.00	.92	427	41	44	110	99	93	39	42	69	3.9
14	.00	1.6	554	45	45	770	121	82	41	33	41	3.3
15	.00	3.1	128	43	260	270	336	64	37	26	33	26
16	.00	43	70	38	174	133	460	57	33	25	25	44
17	.00	24	54	39	79	105	269	52	37	29	21	27
18	.00	15	45	43	57	82	157	51	67	73	17	21
19	.00	12	44	47	46	75	126	59	64	82	14	17
20	.00	12	41	37	44	69	116	54	46	40	14	14
21	.00	47	39	37	37	81	97	71	36	83	12	10
22	.00	25	280	34	37	99	86	51	32	175	9.3	7.1
23	.00	18	252	43	40	62	115	105	28	59	8.1	5.1
24	.00	18	88	48	301	56	137	372	25	37	9.6	3.8
25	.00	135	38	189	103	65	105	84	68	30	8.6	2.7
26	.00	88	49	175	53	87	91	58	44	25	7.1	2.0
27	.00	38	451	122	43	70	88	129	32	303	5.3	1.3
28	.00	39	151	89	309	95	83	85	48	249	4.1	2.2
29	.00	55	385	58	243	1510	81	441	187	74	3.3	3.8
30	.00	37	93	49	---	768	79	1480	128	49	2.6	3.8
31	.00	---	54	65	---	399	---	1050	---	42	1.9	---
TOTAL	.00	612.18	4091	1835	2622	5698	5991	5682	2573	2800	986.9	276.29
MEAN	.00	20.4	132	59.2	90.4	184	200	183	85.8	90.3	31.8	9.21
MAX	.00	135	554	189	309	1510	1210	1480	353	303	167	44
MIN	.00	.00	26	34	37	43	79	51	25	25	1.9	.20
(†)	55.4	44.8	30.7	31.8	34.6	35.6	30.1	40.3	45.2	41.9	43.8	45.0
MEAN‡	55.4	65.2	163	91.0	125	220	230	223	131	132	75.6	54.2
CFSM‡	1.14	1.34	3.34	1.88	2.58	4.54	4.74	4.60	2.70	2.73	1.56	1.12
IN‡	1.32	1.50	3.87	2.16	2.78	5.22	5.29	5.31	3.00	3.14	1.80	1.25

CAL YR 1983 TOTAL 19000.69 MEAN 52.1 MAX 656 MIN .00 MEAN‡ 90.2 CFSM‡ 1.86 IN‡ 25.24
WTR YR 1984 TOTAL 33167.37 MEAN 90.6 MAX 1510 MIN .00 MEAN‡ 128 CFSM‡ 2.64 IN‡ 35.90

† Diversion and change in contents in Swimming River Reservoir, in cubic feet per second.
‡ Adjusted for diversion and change in contents.

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°11'56", long 74°04'14", Monmouth County, Hydrologic Unit 02030104, on left bank 100 ft upstream from bridge on Remsen Mill Road, 0.3 mi downstream from Robins Swamp Brook, and 1.7 mi west of Neptune City.

DRAINAGE AREA.--9.96 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 7.05 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Diversion above station by Monmouth Consolidated Water Co. for municipal supply and by farmers for irrigation.

COOPERATION.--Water-stage recorder inspected by Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--18 years, 15.0 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 601 ft^3/s May 30, 1984, gage height, 5.69 ft; maximum gage height, 7.84 ft, Dec. 26, 1969; no flow many days during many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 601 ft^3/s May 30, gage height, 5.69 ft; maximum gage height, 6.28 Mar. 29; no flow part of Oct. 16, June 26, 27, 28, Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	11	9.6	19	14	27	44	15	100	88	12	5.5
2	5.1	8.4	9.7	18	12	19	36	14	59	22	12	4.7
3	3.6	4.5	14	19	12	15	36	14	42	14	13	16
4	2.4	9.9	79	18	28	13	38	26	29	9.2	12	42
5	2.6	8.5	52	19	28	21	190	21	21	8.0	15	13
6	5.2	4.4	29	18	26	41	124	16	16	27	21	13
7	2.3	4.3	26	18	18	28	47	15	14	83	14	6.6
8	1.8	3.9	18	17	14	26	33	16	13	43	12	3.5
9	1.7	4.8	14	16	12	29	26	26	10	22	8.4	3.3
10	1.7	41	13	17	11	29	20	13	12	15	6.3	3.4
11	1.7	72	11	25	13	28	17	8.9	13	11	6.6	3.4
12	59	20	25	19	14	28	15	9.1	12	11	21	3.4
13	57	12	74	18	13	63	14	14	12	11	15	3.0
14	6.0	9.8	91	18	13	207	21	13	11	13	14	3.8
15	2.5	15	30	17	66	89	44	9.7	6.8	12	12	25
16	1.5	62	25	16	30	56	106	7.6	4.9	16	11	12
17	5.0	13	23	13	17	43	49	6.3	6.2	17	14	5.9
18	4.6	7.0	20	9.3	14	34	31	7.7	6.9	42	10	4.7
19	6.3	4.5	19	9.5	16	31	27	13	4.3	24	7.6	4.1
20	4.9	3.1	18	8.8	7.8	30	24	12	1.2	17	7.7	3.5
21	4.0	35	17	10	6.2	30	21	11	2.1	132	8.5	3.0
22	3.8	15	89	12	6.0	30	19	10	4.5	75	12	2.7
23	8.4	8.7	71	12	8.5	27	28	14	4.3	26	9.3	2.8
24	33	10	29	18	73	26	32	21	4.7	20	4.6	2.9
25	16	73	21	36	23	27	25	13	6.2	17	6.0	2.9
26	11	32	19	29	14	26	21	19	1.0	15	6.6	3.2
27	7.8	14	17	26	14	17	18	32	3.0	62	5.3	2.8
28	8.8	9.3	52	21	134	34	18	23	9.0	30	9.4	7.4
29	11	13	61	17	83	253	17	34	8.7	20	5.9	1.8
30	6.2	8.9	28	15	---	157	16	431	135	17	5.7	4.8
31	8.9	---	21	18	---	73	---	320	---	14	9.5	---
TOTAL	303.1	538.0	1025.3	546.6	740.5	1557	1157	1205.3	572.8	933.2	327.4	214.1
MEAN	9.78	17.9	33.1	17.6	25.5	50.2	38.6	38.9	19.1	30.1	10.6	7.14
MAX	59	73	91	36	134	253	190	431	135	132	21	42
MIN	1.5	3.1	9.6	8.8	6.0	13	14	6.3	1.0	8.0	4.6	1.8

CAL YR 1983 TOTAL 7154.53 MEAN 19.6 MAX 133 MIN .65
WTR YR 1984 TOTAL 9120.3 MEAN 24.9 MAX 431 MIN 1.0

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB 01...	0940	14	185	6.5	1.0	15.4	--	6.0	20	2
MAR 22...	1050	30	134	6.4	6.5	12.4	--	--	40	11
MAY 29...	1130	34	126	6.5	14.5	8.7	--	E3.2	5400	>2400
JUL 26...	1110	16	142	6.6	17.0	7.1	73	E1.5	1100	240
AUG 20...	1120	6.1	150	6.7	17.0	8.1	84	<1.1	790	>2400
SEP 26...	1030	3.5	162	6.8	17.0	8.8	90	<1.2	50	240

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 01...	34	10	2.1	15	2.6	14	23	25	<.10
MAR 22...	29	8.6	1.9	11	2.6	7.0	28	19	.10
MAY 29...	29	8.7	1.7	10	2.3	8.0	19	15	.10
JUL 26...	35	11	1.8	9.2	2.5	17	19	17	<.10
AUG 20...	37	12	1.7	9.9	2.3	19	22	18	.10
SEP 26...	42	14	1.8	9.5	2.2	22	19	17	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 01...	9.8	100	.010	.68	.150	.50	1.2	.090	3.2
MAR 22...	7.9	96	.005	.67	.190	.59	1.3	.050	4.6
MAY 29...	8.1	99	.012	.30	.250	.79	1.1	.200	8.7
JUL 26...	12	110	.018	.33	.110	.74	1.1	.110	6.9
AUG 20...	12	90	.010	.32	.240	.46	.78	.110	5.2
SEP 26...	13	92	.009	.35	.130	.42	.77	.070	2.1

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY											
29...	1130	<.5	--	--	160	<1	--	<10	60	1	--
SEP											
26...	1030	<.5	<.1	1.9	30	1	<1	<10	20	3	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY											
29...	10	--	--	5	--	5100	--	16	--	70	--
SEP											
26...	<10	2	<10	3	0	2800	6900	4	20	40	11

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
29...	<.1	--	6	--	<1	--	30	--	<1	--	--
SEP											
26...	<.1	<.01	4	<10	<1	<1	40	20	<1	1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	<.1	5.0	2.7	<.1	.8	<.1	.4	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, Hydrologic Unit 02030104, on left bank 50 ft downstream from dam on Jumping Brook Reservoir, 0.8 mi upstream from mouth, and 1.4 mi west of Neptune City. Water quality samples collected at bridge on Carlies Avenue, 600 ft downstream from gaging station.

DRAINAGE AREA.--6.46 mi^2, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year. Records for water years 1976-83 are unpublished but are available in the files of New Jersey District Office.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 13.76 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those above 150 ft^3/s, which are poor. Division above station by Monmouth Consolidated Water Co., and by farmers for irrigation.

COOPERATION.--Water-stage recorder inspected by Monmouth Consolidated Water Company

AVERAGE DISCHARGE.--18 years, 10.6 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORDS.--Maximum discharge, 1,830 ft^3/s Sept. 12, 1971, from rating curve extended above 150 ft^3/s; maximum gage height, 7.00 ft, December 16, 1974; no flow June 7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,350 ft^3/s May 30, from rating curve extended above 150 ft^3/s, gage height 6.16 ft; minimum daily, 1.3 ft^3/s Oct. 9, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	2.2	4.8	5.5	5.6	14	18	8.0	39	28	5.0	2.3
2	3.1	2.7	4.2	5.5	4.6	10	15	7.5	31	11	5.1	2.5
3	2.4	1.9	7.3	5.7	5.1	8.7	12	9.2	22	7.3	5.2	12
4	1.9	4.8	53	5.5	15	7.6	17	16	15	5.9	4.8	27
5	1.9	2.5	22	6.1	15	14	321	10	12	5.1	10	5.8
6	4.8	2.2	15	5.8	12	25	60	8.3	9.7	19	8.7	3.8
7	1.8	2.1	13	5.5	7.3	13	24	8.0	8.7	58	5.3	3.3
8	3.0	2.1	7.5	5.0	5.7	9.1	17	10	7.9	18	4.4	3.1
9	1.3	2.1	6.4	4.6	5.3	9.9	14	15	7.0	8.0	3.9	3.0
10	1.3	21	5.3	5.5	5.1	8.7	13	9.0	6.3	6.5	4.2	3.1
11	1.3	33	4.7	10	5.9	8.6	12	8.1	5.8	6.5	4.2	2.9
12	38	7.5	15	5.7	5.9	7.9	11	8.8	5.0	8.3	13	2.9
13	28	4.5	36	5.0	5.3	79	10	10	5.3	5.1	7.0	2.7
14	5.3	3.7	35	5.4	5.4	350	18	9.9	7.1	4.5	5.3	3.6
15	3.0	8.2	13	4.9	57	37	30	7.6	4.8	4.0	4.3	25
16	2.4	33	8.5	4.5	18	23	66	7.0	4.4	11	4.0	7.4
17	2.1	9.2	6.8	4.2	10	18	26	6.6	5.4	6.7	3.7	4.2
18	2.0	5.6	5.9	4.3	9.2	14	16	6.3	7.6	27	3.5	3.5
19	3.1	4.7	5.4	4.7	7.2	12	13	7.2	6.9	11	3.7	3.3
20	2.2	4.1	4.8	4.7	6.6	11	12	6.5	4.9	6.3	3.9	2.9
21	1.9	20	4.4	4.6	6.0	12	11	6.7	4.4	68	3.4	2.4
22	1.8	7.3	53	4.3	5.5	12	9.4	6.1	3.8	25	3.2	2.2
23	5.2	5.1	27	3.9	7.9	9.4	22	10	3.7	10	3.6	2.3
24	22	8.3	11	17	45	8.3	21	12	4.2	7.1	3.7	2.2
25	6.0	37	7.0	28	13	12	13	6.6	9.5	5.6	3.2	2.3
26	3.8	16	6.2	14	8.3	14	11	10	4.4	4.7	2.8	2.3
27	3.7	7.8	5.6	10	6.7	9.1	9.6	20	3.9	39	2.9	2.1
28	2.7	6.1	26	8.2	198	19	9.0	9.4	11	13	2.5	7.7
29	2.3	9.6	26	6.4	39	583	8.9	15	9.1	7.9	3.0	4.3
30	2.2	5.6	9.4	5.9	---	73	8.6	534	168	6.6	2.9	3.1
31	2.3	---	6.5	7.7	---	28	---	140	---	5.9	2.7	---
TOTAL	167.9	279.9	455.7	218.1	540.6	1460.3	848.5	948.8	437.8	450.0	143.1	155.2
MEAN	5.42	9.33	14.7	7.04	18.6	47.1	28.3	30.6	14.6	14.5	4.62	5.17
MAX	38	37	53	28	198	583	321	534	168	68	13	27
MIN	1.3	1.9	4.2	3.9	4.6	7.6	8.6	6.1	3.7	4.0	2.5	2.1

CAL YR 1983 TOTAL 3895.65 MEAN 10.7 MAX 344 MIN .77
WTR YR 1984 TOTAL 6105.9 MEAN 16.7 MAX 583 MIN 1.3

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB										
01...	1030	5.7	215	5.6	1.0	14.3	--	14	<20	2
MAR										
27...	1030	8.9	186	6.0	5.5	12.4	--	E1.3	<20	49
MAY										
29...	1240	14	148	6.0	15.0	9.2	--	E2.2	230	920
JUL										
26...	1020	4.9	155	6.5	19.5	8.6	93	E1.3	490	1600
AUG										
20...	1230	3.8	152	5.9	21.0	8.4	94	E1.3	330	920
SEP										
26...	1140	2.4	175	6.8	18.5	8.5	90	E1.5	80	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
01...	31	8.6	2.4	23	1.9	5.0	28	39	<.10
MAR									
27...	33	9.3	2.3	13	1.9	3.0	27	22	<.10
MAY									
29...	30	8.6	2.1	12	2.0	3.0	23	19	<.10
JUL									
26...	34	10	2.3	10	2.2	10	24	20	<.10
AUG									
20...	32	9.2	2.2	11	2.5	7.0	27	21	<.10
SEP									
26...	48	14	3.1	10	2.5	17	24	21	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	7.0	132	.009	.43	.150	.45	.88	.040	3.3
MAR									
27...	5.7	100	.008	.67	.110	.34	1.0	.030	5.6
MAY									
29...	5.6	113	.012	.31	.150	.60	.91	.130	9.9
JUL									
26...	7.4	119	.013	.35	.250	1.2	1.5	.130	10
AUG									
20...	8.0	95	.006	.39	.240	.59	.98	.040	7.9
SEP									
26...	8.6	102	.006	.28	.280	.99	1.3	.040	3.6

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY 29...	1240	<.5	--	--	230	1	--	<10	30	1	--
SEP 26...	1140	--	.2	1.8	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY 29...	10	--	--	3	--	2900	--	12	--	80	--
SEP 26...	--	2	<10	--	0	--	1600	--	<10	--	24

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 29...	<.1	--	7	--	<1	--	60	--	3	--	--
SEP 26...	--	<.01	--	<10	--	<1	--	9	--	2	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 29...	--	--	--	--	--	--	--	--	--	--	--
SEP 26...	<.1	<1.0	3.9	3.0	5.2	<.1	.8	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 29...	--	--	--	--	--	--	--	--	--	--	--
SEP 26...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01407997 MARSH BOG BROOK AT SQUANKUM, NJ

LOCATION.--Lat 40°10'01", long 74°09'33", Monmouth County, Hydrologic Unit 02040301, at bridge on Squankum-Yellow Brook Road in Squankum, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--4.91 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 06...	1330	.88	235	7.1	17.5	8.3	--	5.6	490	1600
JAN 23...	1250	3.3	146	6.7	1.0	10.8	--	E1.9	<20	17
MAR 27...	0915	8.8	122	5.8	5.0	11.4	--	E2.3	270	27
JUN 14...	1000	3.8	178	6.1	20.5	6.5	--	E5.9	16000	>2400
JUL 19...	1040	5.2	126	6.2	19.5	8.4	91	2.8	1400	>2400
AUG 20...	1020	1.5	150	6.5	18.0	6.8	72	2.6	790	>2400
SEP 20...	1000	.66	200	6.4	15.0	7.2	71	E1.3	230	>2400

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	61	20	2.6	17	3.8	24	36	26	.20
JAN 23...	33	10	2.0	7.1	2.5	13	28	12	.10
MAR 27...	24	6.9	1.6	7.9	2.1	2.0	24	14	<.10
JUN 14...	36	11	2.1	11	3.7	4.0	26	20	.10
JUL 19...	26	7.9	1.5	8.8	3.0	3.0	20	14	.10
AUG 20...	38	12	1.9	7.0	3.0	12	25	12	.10
SEP 20...	52	17	2.2	8.9	3.6	17	32	14	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	10	140	.029	.53	E.950	1.7	2.2	.110	8.7
JAN 23...	12	85	.009	.18	.600	E.89	--	.060	2.9
MAR 27...	8.6	78	.007	.24	.630	.74	.98	.110	3.8
JUN 14...	10	148	.055	.19	1.43	3.3	3.4	.390	21
JUL 19...	12	101	.015	.15	.130	1.6	1.7	.240	12
AUG 20...	13	99	.046	.23	2.32	2.6	2.9	.210	7.8
SEP 20...	13	111	.046	.35	1.70	2.2	2.5	.130	3.9

01407997 MARSH BOG BROOK AT SQUANKUM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT												
06...	1330	<.5	700	<.1	3.0	40	2	<1	<10	70	1	2
SEP												
20...	1000	<.5	--	--	--	20	1	--	<10	30	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
06...	10	5	<10	<10	<10	2100	1100	7	20	90	7
SEP											
20...	10	--	--	4	--	3600	--	6	--	50	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
06...	<.1	<.01	10	<10	<1	<1	20	10	3	5	<1.0
SEP											
20...	.1	--	6	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
06...	<.1	6.0	.9	.1	1.0	<.1	<.1	<.1	<.1	<.1	<.1
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
06...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
SEP											
20...	--	--	--	--	--	--	--	--	--	--	--

01408000 MANASQUAN RIVER AT SQUANKUM, NJ

LOCATION.--Lat 40°09'47", Long 74°09'21", Monmouth County, Hydrologic Unit 02040301, on right bank 50 ft upstream from North bound bridge on State Highway 547 (Squankum Park Road) in Squankum, and 0.4 mi downstream from Marsh Bog Brook.

DRAINAGE AREA.--44.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1931 to current year. Monthly discharge only for July 1931, published in WSP 1302.

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 18.82 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1940, water-stage recorder at site 80 ft upstream at same datum.

REMARKS.--Water-discharge records good except those for period of no gage-height record, Aug. 3 to 5, which are fair. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--53 years, 75.9 ft³/s, 23.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,940 ft³/s Sept. 21, 1938, gage height, 12.45 ft, from floodmark, site then in use, from rating curve extended above 900 ft³/s on basis of contracted-opening measurement of peak flow; minimum, 8.1 ft³/s Aug. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 14	1000	874	6.77	Apr. 5	1930	1320	8.25
Feb. 28	2300	702	6.04	May 30	1745	1520	8.93
Mar. 14	1200	1090	7.50	June 30	2030	1220	7.94
Mar. 29	2015	*1630	9.28				

Minimum discharge, 29 ft³/s Oct. 9, 10, gage height, 2.55 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	36	62	81	86	140	234	92	396	359	51	34
2	53	35	58	78	73	114	178	87	211	123	50	33
3	44	36	69	78	75	101	153	88	165	91	49	37
4	36	44	233	76	128	92	151	138	140	74	48	105
5	34	38	248	80	121	109	875	116	116	66	54	53
6	39	35	127	77	121	198	658	93	100	182	67	42
7	33	34	131	74	92	132	265	87	92	172	68	39
8	31	35	86	69	79	107	195	91	85	125	57	36
9	31	34	73	66	75	104	162	196	78	82	50	35
10	30	74	68	67	72	98	145	111	71	72	49	35
11	31	256	63	96	77	94	132	93	68	69	48	36
12	120	88	148	73	82	92	125	87	64	68	100	35
13	178	63	483	67	77	146	119	106	62	57	96	35
14	69	54	643	68	78	896	128	97	69	54	67	36
15	48	56	207	66	244	345	236	86	62	50	55	84
16	41	221	144	62	167	197	411	81	57	61	49	58
17	38	87	117	61	116	156	254	77	57	55	45	42
18	38	64	101	62	101	130	176	72	72	102	44	39
19	44	57	94	63	92	115	159	75	75	82	43	38
20	39	53	86	59	87	107	136	73	64	58	46	36
21	35	151	78	56	82	112	123	72	58	95	42	35
22	34	91	259	52	77	120	111	67	54	97	41	34
23	39	69	248	54	78	100	128	71	51	65	42	33
24	152	73	124	80	285	91	144	159	49	56	44	33
25	77	280	94	241	139	95	122	79	69	51	40	33
26	56	166	79	198	105	119	108	72	55	47	38	33
27	48	93	73	143	92	95	101	142	50	147	38	32
28	43	78	137	114	347	143	98	92	49	99	37	50
29	40	85	332	91	313	1190	95	238	84	67	38	42
30	37	70	121	84	---	940	94	1070	514	58	38	36
31	37	---	91	109	---	381	---	1050	---	55	37	---
TOTAL	1618	2556	4877	2645	3561	6859	6016	5058	3137	2839	1571	1249
MEAN	52.2	85.2	157	85.3	123	221	201	163	105	91.6	50.7	41.6
MAX	178	280	643	241	347	1190	875	1070	514	359	100	105
MIN	30	34	58	52	72	91	94	67	49	47	37	32
CFSM	1.19	1.94	3.57	1.94	2.80	5.02	4.57	3.70	2.39	2.08	1.15	.95
IN.	1.37	2.16	4.12	2.24	3.01	5.80	5.09	4.28	2.65	2.40	1.33	1.06

CAL YR 1983 TOTAL 33854 MEAN 92.8 MAX 657 MIN 17 CFSM 2.11 IN. 28.62
WTR YR 1984 TOTAL 41986 MEAN 115 MAX 1190 MIN 30 CFSM 2.61 IN. 35.50

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'30", long 74°09'10", Ocean County, Hydrologic Unit 02040301, on downstream left bank at bridge on State Route 549, 1.0 mi upstream from confluence with South Branch Metedeconk River, and 2.3 mi east of Lakewood.

DRAINAGE AREA.--34.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 3.89 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1977 gage located on upstream side of bridge.

REMARKS.--Water-discharge records good except those for December and January and those for periods of no gage-height record, Aug. 3 to 15 and Aug. 18 to Sept. 12, which are poor.

AVERAGE DISCHARGE.--12 years, 65.4 ft^3/s, 25.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft^3/s Nov. 8, 1977, gage height, 9.28 ft, from rating extended above 500 ft^3/s; minimum, 11 ft^3/s many days in August and September, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	1430	335	6.64	Apr. 6	0200	522	7.37
Feb. 29	0330	260	6.21	May 31	0800	636	7.72
Mar. 14	1745	441	7.08	June 30	2400	884	8.35
Mar. 29	2145	*951	8.50	Sept. 4	Unknown	262	6.22

Minimum discharge, 25 ft^3/s Oct. 8-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	34	57	68	66	163	237	76	415	588	48	31
2	46	34	53	64	61	113	178	73	260	246	45	31
3	40	34	58	62	55	77	130	72	188	160	41	34
4	32	45	109	61	82	66	115	94	125	105	41	88
5	28	42	169	63	91	71	318	109	96	77	44	54
6	31	39	145	63	98	121	454	93	82	88	57	43
7	29	35	138	62	76	118	287	80	75	146	56	39
8	26	34	97	58	60	94	205	80	68	167	48	36
9	25	34	73	55	55	81	140	107	63	113	43	35
10	25	61	63	54	52	78	112	104	59	81	42	35
11	25	170	58	77	53	73	105	91	55	64	41	36
12	72	140	77	60	56	68	100	79	52	62	43	35
13	157	90	148	55	55	106	95	95	50	56	67	35
14	108	63	305	57	54	392	103	93	68	51	57	35
15	50	58	269	57	110	320	141	79	59	46	50	76
16	38	133	179	53	141	234	207	71	50	49	47	72
17	34	124	119	51	111	177	239	65	50	48	45	52
18	32	87	81	50	83	124	189	62	64	83	41	42
19	35	62	69	52	66	98	145	61	80	125	39	38
20	35	52	63	51	60	88	123	60	65	78	42	37
21	33	102	57	54	56	86	113	59	52	109	38	35
22	31	106	114	60	53	95	97	57	47	170	37	34
23	35	78	190	58	54	86	105	59	44	98	38	34
24	92	67	120	69	126	76	121	87	43	71	40	33
25	89	137	72	127	123	80	110	78	75	56	35	33
26	66	174	62	117	93	111	97	66	59	49	33	34
27	48	127	55	99	68	92	88	114	45	63	33	33
28	40	90	105	87	158	104	83	101	42	88	33	46
29	37	71	190	75	239	566	79	95	42	79	33	50
30	40	63	170	65	---	663	78	432	215	61	34	42
31	41	---	86	70	---	348	---	620	---	53	34	---
TOTAL	1463	2386	3551	2054	2455	4969	4594	3412	2688	3330	1325	1258
MEAN	47.2	79.5	115	66.3	84.7	160	153	110	89.6	107	42.7	41.9
MAX	157	174	305	127	239	663	454	620	415	588	67	88
MIN	25	34	53	50	52	66	78	57	42	46	33	31
CFSM	1.35	2.28	3.30	1.90	2.43	4.58	4.38	3.15	2.57	3.07	1.22	1.20
IN.	1.56	2.54	3.79	2.19	2.62	5.30	4.90	3.64	2.87	3.55	1.41	1.34

CAL YR 1983 TOTAL 25222 MEAN 69.1 MAX 339 MIN 15 CFSM 1.98 IN. 26.88
WTR YR 1984 TOTAL 33485 MEAN 91.5 MAX 663 MIN 25 CFSM 2.62 IN. 35.69

01408500 TOMS RIVER NEAR TOMS RIVER, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°59'10", long 74°13'29", Ocean County, Hydrologic Unit 02040301, on left bank 1.9 mi downstream from Union Branch, and 2.6 mi northwest of Toms River.

DRAINAGE AREA.--123 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October, November 1928, published in WSP 1302.

REVISED RECORDS.--WSP 1702: 1938. WDR NJ-76-1: 1975(M). WDR NJ-77-1: 1976.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.10 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good, except for periods of no gage-height record, Oct. 1 to Nov. 27 and May 21 to June 27.

AVERAGE DISCHARGE.--56 years, 217 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s Sept. 23, 1938, gage height, 12.50 ft, from floodmark, from rating curve extended above 1,500 ft³/s; minimum, 46 ft³/s many days in August and September 1966, gage height, 2.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft³/s May 31, gage height, 11.71 ft; minimum, 105 ft³/s Sept. 27, gage height, 2.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	151	311	406	271	446	920	350	1800	588	196	127
2	135	144	271	362	254	460	672	335	1500	790	195	124
3	134	144	259	310	245	401	547	329	1000	671	195	124
4	123	150	285	283	257	332	469	313	710	522	184	166
5	114	160	331	274	274	298	563	281	500	395	203	195
6	117	159	386	273	296	323	854	321	390	311	251	191
7	130	157	448	273	293	338	1100	361	345	331	271	160
8	135	152	441	266	269	373	840	345	290	370	253	148
9	163	153	392	255	242	371	658	362	273	377	208	141
10	164	163	345	245	225	338	573	362	252	368	190	132
11	144	200	303	264	218	313	511	392	238	326	181	126
12	162	255	284	269	218	291	469	369	220	277	238	129
13	200	335	330	271	221	311	439	350	210	252	313	128
14	190	300	453	262	223	545	435	331	205	239	241	133
15	200	256	727	252	259	751	453	323	213	216	251	170
16	185	290	714	238	305	871	507	304	206	201	197	167
17	177	315	580	229	354	713	600	273	203	196	185	162
18	166	343	477	226	382	584	670	259	202	213	171	148
19	160	305	396	220	356	494	648	261	220	278	168	136
20	160	248	348	216	314	432	597	255	228	285	171	129
21	150	270	311	210	277	393	596	240	242	320	163	123
22	149	295	323	201	245	374	548	236	223	418	155	119
23	148	330	366	203	232	356	507	231	204	366	155	117
24	175	350	397	212	268	337	491	296	186	308	158	114
25	205	365	428	274	293	326	471	278	193	248	153	113
26	243	400	461	294	336	353	458	323	207	214	146	112
27	218	425	361	322	355	380	433	310	223	203	139	110
28	196	451	312	332	392	392	408	297	213	232	135	125
29	179	410	353	326	411	712	388	450	204	251	133	149
30	170	350	398	304	---	1330	365	660	256	251	132	150
31	158	---	425	284	---	1440	---	1300	---	221	132	---
TOTAL	5065	8026	12216	8356	8285	15378	17190	11097	11356	10238	5863	4168
MEAN	163	268	394	270	286	496	573	358	379	330	189	139
MAX	243	451	727	406	411	1440	1100	1300	1800	790	313	195
MIN	114	144	259	201	218	291	365	231	186	196	132	110
CFSM	1.33	2.18	3.20	2.20	2.33	4.03	4.66	2.91	3.08	2.68	1.54	1.13
IN	1.53	2.43	3.69	2.53	2.51	4.65	5.20	3.36	3.43	3.10	1.77	1.26

CAL YR 1983 TOTAL 93089 MEAN 255 MAX 739 MIN 82 CFSM 2.07 IN 28.15
WTR YR 1984 TOTAL 117238 MEAN 320 MAX 1800 MIN 110 CFSM 2.60 IN 35.46

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1974 to September 1981 (discontinued).
WATER TEMPERATURES: November 1963 to May 1966, November 1974 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
13...	1245	330	78	4.4	10.0	4.0	10.0	89	--	K32	K540
FEB											
15...	1030	263	60	4.6	9.0	4.0	10.8	93	.4	--	--
MAY											
24...	1030	259	60	5.1	18.0	10	8.0	83	--	K730	690
AUG											
24...	1000	160	62	5.6	18.5	3.0	8.4	89	1.9	K260	910

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
DEC										
13...	11	2.5	1.1	5.1	.80	<1.0	12	10	<.10	3.9
FEB										
15...	9	2.1	.97	4.6	.90	2.0	11	7.7	<.10	3.6
MAY										
24...	9	2.1	.89	4.6	1.0	<1.0	9.1	8.2	<.10	3.3
AUG										
24...	10	2.3	1.0	5.2	1.1	2.0	7.9	9.3	<.10	5.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
DEC										
13...	36	27	24	49	.31	.070	.40	.060	.040	<.010
FEB										
15...	--	30	21	41	.40	.080	.40	<.010	<.010	<.010
MAY										
24...	62	48	34	67	.38	.120	.50	.060	.010	.010
AUG										
24...	43	32	14	64	.48	.180	.70	.070	.070	<.010

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
DEC											
13...	1245	260	<1	42	<.5	<1	2	<3	9	480	10
FEB											
15...	1030	250	1	33	<.5	<1	<1	<3	3	340	1
MAY											
24...	1030	180	<1	33	<1	4	<1	<3	1	840	3
AUG											
24...	1000	140	2	30	<1	3	<1	<3	2	370	1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
DEC										
13...	<4	40	.1	<10	2	<1	<1	17	<6	34
FEB										
15...	<4	35	.1	<10	10	<1	<1	15	<6	56
MAY										
24...	<4	36	.2	<10	2	<1	<1	16	<6	30
AUG										
24...	<4	36	<.1	<10	1	<1	<1	17	<6	33

01409095 OYSTER CREEK NEAR BROOKVILLE, NJ

LOCATION.--Lat 39°47'54", long 74°15'02", Ocean County, Hydrologic Unit 02040301, on left bank 100 ft upstream from bridge on State Highway 532, 1.5 mi downstream from reservoir at Wells Mill, and 3.2 mi northeast of Brookville.

DRAINAGE AREA.--7.43 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to December 1984 (discontinued).

REVISED RECORDS.--WDR NJ-82-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Dec. 30 to Jan. 4 and Jan. 11 to Feb. 2, 1984, which are poor. Flow probably contains considerable ground-water inflow from other surface drainage basins. Some minor regulation possible from small reservoirs and cranberry bogs upstream.

AVERAGE DISCHARGE.--19 years, 28.7 ft³/s, 52.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 352 ft³/s March 29, 1984, gage height, 7.47 ft; minimum, 2.4 ft³/s July 29, 1981.

EXTREMES FOR CURRENT PERIOD.--Water year 1984: Peak discharges above base of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 28	2030	136	6.60	Apr. 16	1545	84	5.49
Mar. 14	0530	274	7.04	May 30	1815	126	5.94
Mar. 29	1400	*352	7.47	July 8	0430	79	5.56
Apr. 5	2030	167	6.28				

Minimum daily discharge, 18 ft³/s many days in October, November, and August.

OCTOBER TO DECEMBER 1984: Maximum discharge during period, 42 ft³/s Nov. 12, gage height, 5.24 ft; minimum, 21 ft³/s many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	24	32	25	34	55	40	67	29	25	20
2	24	21	23	30	24	26	49	39	45	36	31	25
3	21	19	25	29	23	23	45	38	37	30	27	23
4	20	26	38	28	31	21	44	42	34	26	27	30
5	20	21	50	28	34	23	109	41	34	27	37	31
6	19	19	36	28	30	34	100	39	32	30	43	24
7	19	18	35	28	26	31	63	38	33	44	33	23
8	19	18	30	27	24	25	53	40	32	67	28	22
9	19	18	27	24	23	25	48	49	30	42	26	22
10	19	24	26	24	22	23	47	43	27	32	24	23
11	19	42	25	27	24	22	46	39	23	30	26	23
12	25	28	30	30	26	22	45	37	22	30	30	23
13	29	19	44	30	25	33	43	36	22	25	30	23
14	23	20	51	28	24	167	46	35	23	24	26	23
15	20	27	36	28	35	78	61	32	24	24	22	26
16	19	50	31	26	39	59	79	32	25	21	18	26
17	18	41	28	25	30	52	66	33	30	19	19	24
18	18	28	27	24	28	48	51	31	33	27	19	23
19	20	23	26	25	26	46	46	31	33	33	20	23
20	19	22	26	25	26	46	45	31	28	22	22	23
21	18	37	24	25	24	46	47	33	24	27	21	22
22	18	35	39	24	24	46	43	33	23	35	20	22
23	21	27	58	23	25	44	48	34	23	24	20	21
24	32	26	37	23	41	43	58	39	23	22	21	22
25	28	42	29	24	36	44	50	36	30	25	19	22
26	22	45	28	29	28	49	44	34	29	22	18	21
27	19	32	28	35	25	46	42	36	24	23	21	21
28	19	26	31	29	71	52	41	35	22	24	27	24
29	21	27	42	28	67	216	41	36	21	22	25	26
30	18	26	35	27	---	115	40	88	22	22	21	23
31	18	---	34	26	---	67	---	115	---	22	19	---
TOTAL	651	828	1023	839	886	1606	1595	1265	875	886	765	704
MEAN	21.0	27.6	33.0	27.1	30.6	51.8	53.2	40.8	29.2	28.6	24.7	23.5
MAX	32	50	58	35	71	216	109	115	67	67	43	31
MIN	18	18	23	23	22	21	40	31	21	19	18	20
CFSM	2.83	3.71	4.44	3.65	4.12	6.97	7.16	5.49	3.93	3.85	3.32	3.16
IN.	3.26	4.15	5.12	4.20	4.44	8.04	7.99	6.33	4.38	4.44	3.83	3.52

CAL YR 1983 TOTAL 11404 MEAN 31.2 MAX 120 MIN 16 CFSM 4.20 IN. 57.10
WTR YR 1984 TOTAL 11923 MEAN 32.6 MAX 216 MIN 18 CFSM 4.39 IN. 59.70

OYSTER CREEK BASIN

01409095 OYSTER CREEK NEAR BROOKVILLE, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	22	23									
2	28	22	26									
3	24	21	23									
4	23	23	23									
5	22	26	22									
6	21	24	35									
7	21	23	32									
8	21	25	25									
9	21	23	24									
10	21	26	24									
11	21	26	23									
12	21	40	23									
13	21	31	23									
14	21	25	22									
15	21	23	23									
16	21	23	24									
17	21	22	23									
18	21	22	22									
19	21	25	22									
20	21	24	23									
21	22	23	23									
22	21	22	25									
23	27	22	23									
24	25	22	22									
25	23	22	23									
26	23	22	22									
27	22	22	23									
28	22	22	23									
29	24	24	23									
30	23	23	22									
31	22	---	22									
TOTAL	691	720	736									
MEAN	22.3	24.0	23.7									
MAX	28	40	35									
MIN	21	21	22									
CFSM	3.00	3.23	3.19									
IN.	3.46	3.60	3.68									

CAL YR 1984 TOTAL 11568 MEAN 31.6 MAX 216 MIN 18 CFSM 4.25 IN. 57.92

01409280 WESTECUNK CREEK AT STAFFORD FORGE, NJ

LOCATION.--Lat 39°40'00", long 74°19'12", Ocean County, Hydrologic Unit 02040301, 75 ft downstream from dam, 0.2 mi south of Stafford Forge, 1.2 mi downstream from Log Swamp Branch, and 2.0 mi west of Staffordville.

DRAINAGE AREA.--15.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year. Occasional low-flow measurements, water years 1969-73, at site 400 ft downstream.

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6.36 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 6, 1981, water-stage recorder and wooden control at site 50 ft upstream at datum 9.42 ft higher.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, Feb. 9 to Apr. 5 and July 8 to Aug. 9, and frozen well, Dec. 24-28, which are poor. Flow regulated by dam 75 ft upstream.

AVERAGE DISCHARGE.--11 years, 34.1 ft^3/s, 29.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 256 ft^3/s July 4, 1978, gage height, 3.70 ft; no flow part of May 17, 1974, Sept. 7, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	1230	94	11.48	Apr. 6	1100	153	12.18
Nov. 25	1530	76	11.29	Apr. 16	2215	106	11.61
Mar. 14	---	98	---	Apr. 24	1515	80	11.27
Mar. 30	---	*182	---	May 31	1430	151	12.16

Minimum daily discharge, 9.8 ft^3/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	37	44	35	58	74	54	132	40	35	31
2	31	24	35	41	34	54	69	50	108	42	35	30
3	29	24	35	41	34	47	67	40	93	42	38	30
4	33	26	48	40	40	43	64	45	81	40	40	43
5	31	25	63	40	45	42	100	56	71	39	45	49
6	27	25	55	39	42	49	146	56	65	39	51	41
7	25	24	52	38	39	47	118	52	61	38	43	35
8	25	24	45	37	36	41	91	52	57	63	39	32
9	24	24	42	36	35	35	76	63	54	57	37	31
10	24	28	40	37	34	32	69	61	52	48	36	31
11	24	38	38	48	33	32	66	55	50	45	36	31
12	30	37	39	46	35	31	64	53	48	42	36	31
13	34	34	50	41	36	45	62	51	45	39	36	31
14	31	33	54	40	35	94	65	50	45	36	36	31
15	28	37	53	38	33	85	79	48	44	33	35	31
16	23	53	49	36	50	72	99	47	43	30	35	33
17	9.8	51	46	36	47	60	102	44	43	31	34	31
18	22	43	43	36	43	54	86	44	47	37	34	30
19	25	40	42	39	39	52	73	45	56	58	35	28
20	25	38	41	37	37	52	67	46	51	50	36	28
21	25	47	40	35	35	52	63	48	46	42	34	28
22	26	63	52	34	34	50	58	45	41	45	34	27
23	27	54	68	32	34	48	66	46	43	48	33	26
24	34	50	64	35	47	47	78	52	43	43	34	27
25	34	67	60	44	46	51	77	50	54	40	33	27
26	31	69	51	44	43	59	67	48	53	37	32	27
27	28	55	47	42	38	55	61	55	48	36	32	24
28	26	46	49	40	45	59	57	55	44	38	32	26
29	25	44	57	37	68	78	55	55	42	38	32	28
30	24	40	53	36	---	173	54	91	41	38	32	27
31	24	---	49	38	---	105	---	143	---	37	32	---
TOTAL	836.8	1187	1497	1207	1152	1802	2273	1700	1701	1291	1112	925
MEAN	27.0	39.6	48.3	38.9	39.7	58.1	75.8	54.8	56.7	41.6	35.9	30.8
MAX	34	69	68	48	68	173	146	143	132	63	51	49
MIN	9.8	24	35	32	33	31	54	40	41	30	32	24
CFSM	1.71	2.51	3.06	2.46	2.51	3.68	4.80	3.47	3.59	2.63	2.27	1.95
IN.	1.97	2.79	3.52	2.84	2.71	4.24	5.35	4.00	4.00	3.04	2.62	2.18

CAL YR 1983 TOTAL 12713.8 MEAN 34.8 MAX 105 MIN 9.8 CFSM 2.20 IN. 29.93
WTR YR 1984 TOTAL 16683.8 MEAN 45.6 MAX 173 MIN 9.8 CFSM 2.89 IN. 39.28

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ

LOCATION.--Lat 39°44'25", long 74°43'37", Burlington County, Hydrologic Unit 02040301, at bridge on U.S. Route 206 in Atsion, at outlet of Atsion Lake, and 0.2 mi upstream from Wesickaman Creek.

DRAINAGE AREA.--26.7 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
04...	1210	E21	40	4.3	20.5	9.4	--	<.9	<20	<2
FEB										
07...	1150	E57	61	4.4	3.5	13.8	--	<1.2	<20	<2
APR										
02...	1300	--	55	3.9	10.0	12.0	--	E1.1	<20	<2
MAY										
30...	0930	E91	40	4.3	17.5	9.2	--	E1.5	50	49
JUL										
23...	0930	E42	41	4.1	23.5	8.3	97	E1.8	40	240
AUG										
16...	0930	E37	44	4.5	24.0	7.3	86	E1.1	20	>2400

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
04...	9	2.3	.78	2.5	.60	6.0	6.2	4.1	<.10
FEB									
07...	7	1.5	.74	3.2	.60	<1.0	9.4	6.5	<.10
APR									
02...	6	1.4	.59	2.6	.70	<1.0	9.4	4.9	<.10
MAY									
30...	6	1.3	.57	2.5	.60	<1.0	5.6	4.7	<.10
JUL									
23...	6	1.3	.60	2.4	.70	1.0	9.9	5.1	<.10
AUG									
16...	7	1.7	.73	2.5	.80	3.0	5.6	5.7	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
04...	3.0	33	.003	.13	<.050	.16	.29	.030	3.6
FEB									
07...	3.4	--	.004	.21	<.050	.21	.42	.030	5.4
APR									
02...	1.7	29	.003	<.05	.050	.27	--	.020	8.3
MAY									
30...	2.2	32	.003	.13	.060	.49	.62	.030	7.6
JUL									
23...	4.3	38	.009	.12	.060	.73	.85	.050	18
AUG									
16...	4.9	40	.012	.10	<.050	1.1	1.2	.040	--

01409400 MULLICA RIVER NEAR BATSTO, NJ

LOCATION.--Lat 39°40'28", long 74°39'55", Atlantic County, Hydrologic Unit 02040301, on right bank 2.4 mi upstream from Sleeper Branch, and 2.5 mi north of Batsto.

DRAINAGE AREA.--46.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1957 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1958(M), 1960(M), 1967-68(M), WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 11.93 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for period of no gage-height record, Feb. 14 to Apr. 10, which are poor. Some regulation from upstream cranberry bogs and Atsion Lake. Diversions from Sleeper Branch enter river upstream of gage.

AVERAGE DISCHARGE.--27 years, 111 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s Feb. 26, 1979, gage height, 6.14 ft; minimum, 7.0 ft³/s Sept. 6-8, 1966, gage height, 0.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 946 ft³/s Mar. 30, gage height, 4.93 ft; minimum daily, 31 ft³/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	43	166	183	139	209	757	146	632	118	62	38
2	61	44	135	160	128	183	479	139	571	170	60	37
3	52	43	107	143	125	166	325	131	380	169	74	37
4	46	47	130	125	140	149	204	133	314	147	77	60
5	42	48	192	128	132	142	407	133	251	119	78	53
6	41	54	198	129	128	147	736	132	205	103	83	48
7	38	46	236	129	123	154	842	135	155	103	80	44
8	36	43	225	123	112	158	617	139	121	107	72	41
9	35	42	199	118	108	156	438	167	117	111	64	38
10	32	52	184	115	103	142	322	153	109	118	59	38
11	31	95	168	131	101	138	233	144	100	121	60	38
12	50	93	165	135	103	136	183	145	92	119	96	38
13	63	87	204	125	101	148	177	146	86	107	119	37
14	58	87	241	124	108	212	172	140	90	94	111	44
15	59	97	218	123	134	348	171	130	90	84	93	95
16	48	182	222	118	158	426	202	119	87	76	81	88
17	43	187	216	112	204	374	232	109	87	70	72	65
18	41	163	199	108	187	318	233	105	96	73	64	57
19	41	168	182	105	198	261	297	101	107	79	60	54
20	41	164	164	101	174	218	268	83	106	79	60	50
21	40	204	145	100	156	204	231	85	96	87	56	46
22	42	200	160	96	139	172	202	84	86	93	53	43
23	45	165	181	87	127	151	202	85	81	90	53	40
24	64	156	138	95	146	136	218	93	76	87	52	38
25	64	229	126	148	163	118	200	90	81	84	50	37
26	62	268	110	133	172	123	179	87	80	77	46	36
27	67	217	163	142	169	147	161	89	78	71	44	35
28	70	206	163	149	183	194	158	87	75	68	44	44
29	58	207	227	156	191	372	160	91	72	66	46	49
30	51	188	202	155	---	893	153	224	69	65	42	47
31	46	---	206	155	---	819	---	498	---	65	41	---
TOTAL	1503	3825	5572	3951	4152	7514	9159	4143	4590	3020	2052	1415
MEAN	48.5	128	180	127	143	242	305	134	153	97.4	66.2	47.2
MAX	70	268	241	183	204	893	842	498	632	170	119	95
MIN	31	42	107	87	101	118	153	83	69	65	41	35

CAL YR 1983 TOTAL 49739 MEAN 136 MAX 668 MIN 22
WTR YR 1984 TOTAL 50896 MEAN 139 MAX 893 MIN 31

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ

LOCATION.--Lat 39°38'02", long 74°43'05", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road in Wescoatville, 1.1 mi southwest of Nesco, 1.7 mi upstream from Norton Branch, and 3.8 mi southwest of Batsto.

DRAINAGE AREA.--9.57 mi², revised.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
04...	1010	13	128	6.2	17.0	3.4	--	<.2	20	540
JAN										
31...	1130	27	128	6.0	4.5	8.9	--	E2.0	<20	2
APR										
02...	1200	28	120	6.1	8.0	9.1	--	2.6	<20	350
MAY										
30...	1030	145	117	4.3	16.0	4.7	--	2.8	2400	>2400
JUL										
23...	1030	29	105	5.6	22.0	1.9	22	<.1	20	130
AUG										
09...	1320	23	130	6.3	23.0	1.4	16	<.1	80	920

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
04...	27	7.2	2.2	14	4.4	9.0	16	14	.20
JAN									
31...	23	5.7	2.2	9.4	2.5	11	16	15	.20
APR									
02...	25	6.4	2.2	6.5	3.1	2.0	18	9.9	<.10
MAY									
30...	16	3.8	1.5	4.2	2.5	<1.0	14	7.1	.10
JUL									
23...	19	4.7	1.8	8.8	2.3	8.0	10	12	.20
AUG									
09...	20	4.9	2.0	13	3.1	20	9.5	16	.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
04...	6.6	104	.041	2.8	.810	1.4	4.1	.750	7.2
JAN									
31...	6.0	81	.029	2.1	.960	1.4	3.5	.370	4.5
APR									
02...	5.0	69	.019	1.9	1.06	1.7	3.6	.390	4.5
MAY									
30...	3.1	68	.034	1.0	.640	1.9	2.9	.320	11
JUL									
23...	5.0	83	.025	1.6	.100	.86	2.4	E.600	8.1
AUG									
09...	6.6	90	.040	1.8	1.27	2.3	4.1	.720	7.3

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 04...	--	--	1000	<.1	8.2	--	--	<1	--	--	--	<1
MAY 30...	1030	<.5	--	--	--	260	1	--	<10	60	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 04...	--	8	<10	--	<1	--	410	--	<10	--	5
MAY 30...	<10	--	--	7	--	1300	--	10	--	40	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	--	.05	--	<10	--	<1	--	10	--	21	<1.0
MAY 30...	.3	--	4	--	<1	--	30	--	4	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	<.1	38	140	20	56	<.1	<.1	<.1	<.1	<.1	7.0
MAY 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	<.1	4.2	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY 30...	--	--	--	--	--	--	--	--	--	--	--

01409500 BATSTO RIVER AT BATSTO, NJ

LOCATION.--Lat 39°38'33", long 74°39'00", Burlington County, Hydrologic Unit 02040301, on right bank 30 ft downstream from bridge on State Highway 542 at Batsto, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for April to September 1939, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1930, 1933, 1936, 1938. WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1939; prior to Mar. 24, 1939, wooden control at site 50 ft downstream. Datum of gage is 1.4 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Considerable regulation at times by sluice gates prior to December 1954 and by automatic Bascule and sluice gates since July 1959 at Batsto Lake, 300 ft upstream, capacity, about 60,000,000 gal.

AVERAGE DISCHARGE.--57 years, 125 ft³/s, 25.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,310 ft³/s Aug. 24, 1933; maximum gage height, 8.7 ft Aug. 20, 1939, from floodmark; minimum daily discharge, 5.7 ft³/s Oct. 4, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 754 ft³/s June 1; minimum daily, 59 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	74	187	212	153	264	460	161	754	106	79	66
2	93	74	169	189	146	236	358	151	621	216	79	63
3	97	74	158	169	139	204	275	142	478	317	98	66
4	90	78	163	156	145	184	235	143	336	255	124	85
5	79	82	186	152	153	176	300	143	268	194	111	87
6	74	82	222	149	155	186	537	150	210	154	107	78
7	72	79	242	148	148	195	557	148	175	154	98	73
8	71	78	238	143	139	195	444	149	159	143	94	71
9	64	77	218	137	132	186	345	156	141	139	86	69
10	62	86	195	136	127	173	281	157	130	137	79	68
11	62	114	175	146	125	173	234	158	125	130	77	67
12	75	139	175	152	126	169	206	162	119	128	96	66
13	96	154	192	151	129	180	192	159	115	128	98	66
14	94	146	230	146	129	260	188	148	117	113	103	67
15	83	142	292	140	146	470	191	139	119	103	107	102
16	76	162	298	136	183	538	214	130	115	96	100	102
17	74	186	255	129	232	461	246	123	113	94	91	87
18	71	218	224	129	232	372	276	118	113	96	85	79
19	70	204	190	130	224	301	311	121	125	100	80	76
20	70	184	169	123	207	252	346	121	121	103	81	73
21	70	190	148	118	186	225	304	119	115	105	80	71
22	68	189	153	115	168	205	257	112	110	113	76	68
23	70	199	177	113	161	188	238	112	107	113	75	66
24	89	192	209	116	178	170	235	115	103	111	74	64
25	93	205	196	133	208	162	231	119	108	103	72	64
26	92	255	170	151	220	170	223	119	106	92	70	64
27	87	322	152	173	210	180	208	114	100	90	72	63
28	83	286	150	191	225	206	182	112	95	83	71	69
29	83	251	173	186	248	341	173	118	93	81	73	75
30	82	214	212	173	---	583	167	203	92	79	70	73
31	78	---	220	161	---	577	---	504	---	79	68	---
TOTAL	2427	4736	6138	4603	4974	8182	8414	4626	5483	3955	2674	2188
MEAN	78.3	158	198	148	172	264	280	149	183	128	86.3	72.9
MAX	97	322	298	212	248	583	557	504	754	317	124	102
MIN	59	74	148	113	125	162	167	112	92	79	68	63
CFSM	1.15	2.33	2.92	2.18	2.54	3.89	4.13	2.20	2.70	1.89	1.27	1.08
IN.	1.33	2.60	3.37	2.53	2.73	4.49	4.62	2.54	3.01	2.17	1.47	1.20

CAL YR 1983 TOTAL 52222 MEAN 143 MAX 570 MIN 47 CFSM 2.11 IN. 28.65
WTR YR 1984 TOTAL 58400 MEAN 160 MAX 754 MIN 59 CFSM 2.36 IN. 32.04

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1956, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
04...	1130	90	52	4.9	19.0	9.8	--	<1.1	<20	<2
JAN										
31...	1050	178	70	4.5	2.5	15.0	--	<1.1	<20	<2
APR										
12...	1110	232	59	4.1	9.0	11.9	--	<.9	<20	5
MAY										
30...	1145	221	42	5.0	15.0	9.3	--	E1.5	170	540
JUL										
23...	1120	111	43	5.2	23.0	7.9	91	E1.4	20	39
AUG										
09...	1220	81	32	5.0	23.0	6.0	69	<.4	<20	240
SEP										
27...	1250	62	30	5.1	16.5	9.5	95	E.7	<20	<2

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
04...	12	3.1	1.0	2.7	.80	5.0	12	4.3	.10
JAN									
31...	13	2.9	1.3	3.0	1.0	<1.0	13	7.0	<.10
APR									
12...	9	2.2	.92	2.5	.80	<1.0	11	5.9	<.10
MAY									
30...	8	1.8	.83	2.4	.70	2.0	6.7	6.2	<.10
JUL									
23...	10	2.6	.94	2.3	.80	3.0	9.7	5.7	<.10
AUG									
09...	5	1.3	.50	1.9	.50	2.0	3.6	4.2	<.10
SEP									
27...	4	.84	.50	2.0	.50	2.0	4.2	3.9	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
04...	5.7	44	<.003	.11	.050	.26	.37	.040	3.1
JAN									
31...	4.3	48	.007	.46	<.050	.29	.75	.030	3.8
APR									
12...	1.5	--	.003	.14	.080	.13	.27	<.020	5.8
MAY									
30...	3.5	56	.016	.09	<.050	.51	.60	.050	10
JUL									
23...	4.9	42	.007	.06	<.050	.37	.43	.040	8.9
AUG									
09...	4.6	32	.004	<.05	.050	.46	--	.030	8.9
SEP									
27...	4.4	15	<.003	<.05	E.210	E.37	--	<.020	1.9

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY									
30...	1145	<.5	140	1	<10	50	1	20	2

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
30...	2600	2	20	.8	3	<1	30	3

01409510 BATSTO RIVER AT PLEASANT MILLS, NJ

LOCATION.--Lat 39°37'55", long 74°38'40", Burlington County, Hydrologic Unit 02040301, on right bank, 0.5 mi southeast of Pleasant Mills.

DRAINAGE AREA.--73.6 mi^2.

TIDE ELEVATION DATA

PERIOD OF RECORD.--July 1958 to current year. Annual maximum only published for 1958 to 1965.

GAGE.--Water-stage recorder. Datum of gage is -8.6 ft National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines. No gage-height or doubtful record on Dec. 21, Dec. 25-Jan. 5, Jan. 12, 16, 20-22, Feb. 1-13, 25-26, Mar. 10-11.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 7.2 ft Mar. 7, 1962; minimum (1966-84), -0.67 ft Jan. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 6.64 ft Mar. 29; minimum recorded, 0.36 ft Sept. 23.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.17	4.05	4.24	3.10	3.97	6.64	4.03	3.44	4.15	3.25	3.33	3.51
high tide	Date	25	15	4	14	28	29	5	31	1	29	25	30
Minimum	Elevation	0.46	0.44	0.98	--	--	0.71	0.92	0.40	0.46	0.62	0.47	0.36
low tide	Date	29,30	1	3	--	--	25	29,30	23	29	16,17, 26,28	23	23
Mean high tide		2.83	2.76	--	--	--	2.79	3.08	2.54	2.81	2.67	2.84	2.73
Mean water level		1.91	1.98	--	--	--	2.22	2.44	1.67	1.90	1.73	1.84	1.68
Mean low tide		0.92	1.19	--	--	--	1.50	1.67	0.80	0.95	0.84	0.76	0.62

01409810 WEST BRANCH WADING RIVER NEAR JENKINS, NJ

LOCATION.--Lat 39°41'17", long 74°32'54", Burlington County, Hydrologic Unit 02040301, on right bank 900 ft downstream from Godfrey Bridge on Washington-Jenkins Road, 2.2 mi downstream from Hospitality Brook, and 1.2 mi southwest of Jenkins.

DRAINAGE AREA.--84.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR NJ-77-1: 1976. WDR NJ-81-1: 1975(P), 1976(P), 1977(P), 1978(P), 1979(P), 1980(P).

GAGE.--Water-stage recorder. Datum of gage is 10.17 ft, revised, National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Some regulation by cranberry bogs and small ponds.

AVERAGE DISCHARGE.--10 years, 153 ft³/s, 24.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft³/s Feb. 26, 1979, gage height, 16.14 ft; minimum, 22 ft³/s July 24, 1977, gage height 10.16 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 15	1430	780	14.80	Apr. 6	1700	717	14.61
Mar. 30	1545	901	15.14	May 31	1715	*1030	15.47

Minimum discharge, 50 ft³/s Oct. 19, gage height 10.45 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	86	183	245	169	377	646	167	990	159	79	60
2	117	92	163	235	158	319	515	162	784	185	75	58
3	112	106	153	215	156	274	397	158	614	195	192	57
4	84	115	178	190	194	224	348	161	480	166	160	97
5	79	106	231	170	200	219	525	163	336	133	136	126
6	88	88	209	158	187	296	702	158	246	114	155	97
7	69	73	203	154	174	318	649	155	194	143	129	75
8	75	68	179	147	157	305	538	179	149	219	109	76
9	68	67	160	141	152	292	437	213	126	183	99	70
10	57	85	122	141	145	283	347	208	118	148	92	64
11	68	212	111	196	147	266	303	177	113	133	87	65
12	73	206	123	181	154	252	273	169	108	133	98	61
13	80	186	182	175	144	262	218	157	102	120	99	61
14	78	166	238	170	141	588	212	148	113	115	94	63
15	86	164	230	165	251	753	228	139	110	99	90	107
16	88	283	229	156	366	720	367	124	105	91	86	102
17	68	283	223	145	358	614	423	140	105	85	80	78
18	55	271	206	143	326	516	406	162	127	95	77	78
19	53	250	184	154	284	419	327	168	148	111	74	89
20	55	215	160	145	252	372	279	145	138	97	72	81
21	54	273	137	135	213	331	232	141	123	101	69	72
22	56	295	191	130	192	258	207	129	113	146	66	75
23	66	261	289	121	186	235	214	121	103	169	64	74
24	124	234	294	134	288	218	228	138	99	158	65	71
25	140	314	240	216	303	220	259	129	131	157	64	68
26	144	405	196	214	283	255	232	122	130	131	63	64
27	147	412	178	202	235	254	211	132	109	101	61	57
28	122	371	158	194	306	270	191	127	100	97	62	67
29	127	311	170	179	400	532	188	133	97	93	68	102
30	100	242	200	170	---	860	169	445	105	88	65	77
31	85	---	240	181	---	812	---	950	---	83	63	---
TOTAL	2687	6240	5960	5302	6521	11914	10271	5820	6316	4048	2793	2292
MEAN	86.7	208	192	171	225	384	342	188	211	131	90.1	76.4
MAX	147	412	294	245	400	860	702	950	990	219	192	126
MIN	53	67	111	121	141	218	169	121	97	83	61	57
CFSM	1.03	2.47	2.28	2.03	2.68	4.57	4.07	2.24	2.51	1.56	1.07	.91
IN.	1.19	2.76	2.64	2.35	2.88	5.27	4.54	2.57	2.79	1.79	1.24	1.01

CAL YR 1983 TOTAL 60408 MEAN 166 MAX 641 MIN 28 CFSM 1.97 IN. 26.72
WTR YR 1984 TOTAL 70164 MEAN 192 MAX 990 MIN 53 CFSM 2.28 IN. 31.04

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ
(National stream-quality accounting network station)

LOCATION.--Lat 39°40'30", long 74°32'28", Burlington County, Hydrologic Unit 02040301, at bridge on State Highway 563 in Maxwell, 1.6 mi southeast of Washington, 1.8 mi southwest of Jenkins, and 2.2 mi upstream from confluence with Oswego River.

DRAINAGE AREA.--85.9 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Water-stage recorder located at station 01409810.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 23...	1130	256	67	4.1	9.0	1.2	9.6	82	.6	K3	470
JAN 30...	1200	173	53	4.2	2.0	2.3	12.0	86	.8	<4	890
MAR 14...	1300	625	47	4.2	3.0	3.3	12.0	88	1.1	<4	140
MAY 08...	1200	229	43	4.3	14.5	2.7	8.6	84	.9	--	750
JUL 20...	1300	104	33	4.5	21.0	4.0	7.3	81	1.2	K15	1200
SEP 21...	1130	64	35	4.7	16.0	1.6	8.5	86	--	K7	K110

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 23...	5	1.0	.62	2.8	.40	<1.0	13	3.6	.20	4.0
JAN 30...	4	.70	.47	2.6	.40	<1.0	10	4.8	<.10	4.4
MAR 14...	3	.56	.30	1.7	.40	<1.0	5.7	3.4	<.10	2.0
MAY 08...	3	.56	.38	1.9	.40	<1.0	5.2	4.8	<.10	3.2
JUL 20...	3	.62	.33	1.8	.40	<1.0	3.5	4.2	<.10	5.4
SEP 21...	3	.61	.38	1.9	.60	<1.0	4.8	4.2	<.10	5.4

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV 23...	32	10	6.9	80	<.10	.050	.30	.020	.020	.020
JAN 30...	28	6	2.8	68	<.10	.060	1.1	.030	.030	.030
MAR 14...	11	6	10	41	<.10	.030	.40	.020	.020	.020
MAY 08...	32	9	5.6	53	<.10	.030	.60	<.010	<.010	<.010
JUL 20...	31	21	--	43	<.10	.030	1.9	.040	<.010	.040
SEP 21...	22	3	.52	82	<.10	.030	.60	<.010	<.010	<.010

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV											
23...	1130	330	<1	31	<.5	3	<1	<3	3	600	7
JAN											
30...	1200	240	<1	24	<.5	2	<1	<3	2	500	8
MAY											
08...	1200	180	1	20	<1	<1	10	3	3	570	8
SEP											
21...	1130	140	<1	22	<1	2	<1	<3	2	300	3

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UC/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV										
23...	<4	25	.2	<10	<1	<1	<1	9	<6	36
JAN										
30...	<4	17	.2	<10	3	<1	<1	7	<6	22
MAY										
08...	<4	12	.1	<10	3	<1	<1	6	<6	17
SEP										
21...	<4	12	<.1	<10	1	<1	<1	6	<6	16

01410000 OSWEGO RIVER AT HARRISVILLE, NJ

LOCATION.--Lat 39°39'47", long 74°31'26", Burlington County, Hydrologic Unit 02040301, on right bank 50 ft downstream from bridge on State Highway Spur 563 at Harrisville, and 0.5 mi upstream from confluence with West Branch Wading River.

DRAINAGE AREA.--72.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1955, published as "East Branch Wading River at Harrisville".

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since June 23, 1939. Datum of gage is 4.62 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for period of gate openings, Nov. 7-18 and for period of no gage-height record, Feb. 11 to 14, which are fair. Figures given herein represent flow over main spillway and through bypass channel. Flow regulated by Harrisville Pond 200 ft above station, capacity, about 30,000,000 gal and by ponds and cranberry bogs 5 to 10 mi upstream.

AVERAGE DISCHARGE.--54 years, 88.1 ft³/s, 16.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft³/s Aug. 20, 1939, gage height, 9.54 ft, from high-water mark in gage house, from rating curve extended above 640 ft³/s; no flow part of Oct. 26, 1932, June 10, 1970, and May 29, 30, 1974, while pond was filling.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 700 ft³/s May 31, gage height, 5.74 ft; minimum, 29 ft³/s Oct. 7, gage height, 2.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	36	100	111	94	213	393	126	657	104	64	45
2	61	37	89	104	86	176	316	121	521	112	63	43
3	46	40	86	99	82	159	244	117	399	105	89	44
4	37	52	119	95	102	144	213	121	312	89	81	71
5	33	50	149	94	109	137	297	121	229	80	90	76
6	32	45	148	94	106	169	386	118	170	78	102	74
7	31	49	141	91	97	169	377	115	150	132	98	67
8	33	39	131	88	89	154	325	136	131	189	92	61
9	32	31	119	83	87	150	274	166	117	184	81	58
10	32	44	109	85	82	143	216	160	107	155	77	56
11	32	101	98	114	78	133	185	137	95	137	75	54
12	41	87	106	112	80	127	163	129	88	127	81	55
13	50	71	137	102	81	150	147	118	82	117	75	52
14	51	77	161	97	82	349	151	109	97	103	72	53
15	42	80	159	93	140	431	166	101	89	88	68	67
16	39	155	144	88	172	403	225	88	82	81	63	69
17	37	159	131	83	162	339	272	80	80	77	58	66
18	36	136	120	83	144	285	259	79	96	90	54	56
19	37	118	110	85	130	237	230	95	104	100	53	51
20	36	103	99	81	119	192	203	90	99	97	54	49
21	36	148	89	77	109	174	180	85	92	112	45	46
22	37	153	123	71	101	163	160	82	93	126	47	44
23	39	140	154	67	100	144	168	83	80	115	48	43
24	71	131	149	74	143	130	187	97	76	101	50	41
25	74	183	92	109	147	129	203	92	105	93	48	38
26	58	221	121	123	130	142	180	87	115	81	47	33
27	50	201	99	115	117	140	158	97	106	75	47	35
28	44	173	114	108	170	154	147	95	96	71	49	47
29	41	147	153	101	229	291	142	99	87	69	51	57
30	38	123	147	95	---	465	128	318	88	68	50	51
31	37	---	125	96	---	462	---	613	---	66	48	---
TOTAL	1304	3130	3822	2918	3368	6654	6695	4075	4643	3222	2020	1602
MEAN	42.1	104	123	94.1	116	215	223	131	155	104	65.2	53.4
MAX	74	221	161	123	229	465	393	613	657	189	102	76
MIN	31	31	86	67	78	127	128	79	76	66	45	33
CFSM	.58	1.43	1.70	1.30	1.60	2.97	3.08	1.81	2.14	1.43	.90	.74
IN.	.67	1.61	1.96	1.50	1.73	3.41	3.44	2.09	2.38	1.65	1.04	.82

CAL YR 1983 TOTAL 32148 MEAN 88.1 MAX 329 MIN 24 CFSM 1.22 IN. 16.50
WTR YR 1984 TOTAL 43453 MEAN 119 MAX 657 MIN 31 CFSM 1.64 IN. 22.30

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-63, 1976 to curent year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 13...	1030	50	41	4.5	17.5	8.9	--	<1.1	20	20
FEB 07...	0915	99	52	4.4	3.5	12.8	--	E1.3	<20	<2
APR 02...	0930	325	53	4.1	6.0	11.6	--	E1.0	<20	2
MAY 31...	0920	596	45	4.0	14.5	9.4	--	E1.5	1700	130
JUL 17...	0940	78	50	4.2	25.0	7.9	95	E.9	<20	17
AUG 09...	1000	81	39	4.2	25.5	7.7	93	E1.6	<20	15
SEP 27...	1000	38	42	4.1	17.0	9.4	97	E.9	<20	<2

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 13...	5	1.2	.54	2.6	.80	<1.0	7.0	4.4	<.10
FEB 07...	5	.98	.62	2.7	.70	<1.0	8.4	5.3	<.10
APR 02...	5	1.2	.46	3.1	.40	<1.0	6.9	5.6	<.10
MAY 31...	3	.81	.34	1.9	.30	<1.0	5.6	3.6	<.10
JUL 17...	4	.84	.35	2.4	.60	<1.0	9.4	4.7	<.10
AUG 09...	3	.77	.35	2.1	.60	<1.0	4.3	4.4	<.10
SEP 27...	4	.87	.38	2.3	.70	<1.0	5.9	4.1	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	7.8	20	.003	<.05	<.050	.26	--	.030	2.0
FEB 07...	5.5	30	.003	<.05	<.050	.15	--	.040	4.1
APR 02...	2.1	23	.003	<.05	.050	.39	--	.030	7.0
MAY 31...	2.9	51	.004	<.05	<.050	.45	--	.030	13
JUL 17...	5.2	36	.005	<.05	.130	.48	--	.060	9.1
AUG 09...	5.5	29	.004	<.05	<.050	.49	--	.030	7.4
SEP 27...	7.1	22	.003	<.05	E.110	.24	--	.020	2.2

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 13...	1030	--	1500	<.1	1.2	--	--	<1	--	--	--	2
SEP 27...	1000	<.5	--	--	--	120	<1	--	<10	<20	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 13...	--	3	<10	--	<1	--	3900	--	<10	--	8
SEP 27...	<10	--	--	2	--	940	--	1	--	10	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 13...	--	<.01	--	<10	--	<1	--	6	--	9	<1.0
SEP 27...	<.1	--	1	--	<1	--	30	--	1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 13...	<.1	6.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
SEP 27...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 13...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
SEP 27...	--	--	--	--	--	--	--	--	--	--	--

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ

LOCATION.--Lat 39°37'23", long 74°26'30", Burlington County, Hydrologic Unit 02040301, on left bank upstream of bridge on Stage Road, 0.7 mi west of Lake Absegami, 2.2 mi north of New Gretna, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--8.11 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969 to 1974. January 1978 to current year.

REVISED RECORDS.--WDR NJ-81-1: 1978-80(P).

GAGE.--Water-stage recorder. Altitude of gage is 5 ft, from topographic map.

REMARKS.--Water-discharge records good. Some regulation by Lake Absegami.

AVERAGE DISCHARGE.--6 years, 16.8 ft^3/s, 28.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 260 ft^3/s July 4, 1978, gage height, 5.87 ft; minimum, 6.9 ft^3/s Oct. 24, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 65 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 29	1915	*97	a5.66
Apr. 5	1915	72	5.20
May 31	0245	92	5.43

a Backwater from tide.

Minimum discharge, 7.6 ft^3/s Nov. 8, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.6	15	23	20	31	41	29	55	20	12	10
2	12	8.5	14	23	19	26	38	28	41	20	12	9.9
3	10	8.4	15	23	19	24	36	27	37	19	15	10
4	9.3	9.6	26	23	23	23	36	30	35	18	17	18
5	8.9	9.5	34	23	25	24	61	34	32	18	18	21
6	8.7	8.7	29	23	22	27	64	32	31	19	21	15
7	8.4	8.2	25	23	20	24	49	29	30	24	16	12
8	8.3	7.9	21	22	19	19	42	29	28	33	13	11
9	8.2	7.6	18	22	19	18	38	36	27	27	12	10
10	8.3	10	17	22	18	18	37	34	26	20	12	10
11	8.3	19	16	27	19	17	36	29	25	19	12	10
12	10	17	20	27	20	18	35	27	24	18	13	10
13	12	11	29	23	20	22	34	27	23	16	13	10
14	11	9.9	31	22	18	53	35	25	25	15	12	10
15	9.6	13	26	22	24	45	38	25	24	14	12	11
16	9.0	27	22	21	28	35	48	24	23	13	12	12
17	8.8	25	19	21	24	32	47	24	22	13	11	10
18	8.7	15	18	21	22	30	39	23	27	22	11	10
19	8.9	13	17	22	21	29	35	24	28	32	11	10
20	9.2	12	16	21	20	29	33	24	26	23	12	9.9
21	8.9	22	15	20	19	29	32	25	23	17	11	9.6
22	8.7	24	27	19	19	28	31	24	21	20	11	9.4
23	9.0	17	39	19	19	27	37	23	20	17	11	9.4
24	16	16	32	20	26	26	44	29	21	15	12	9.3
25	18	28	26	26	26	27	38	27	27	13	11	9.3
26	13	31	24	26	22	33	34	23	29	12	10	9.4
27	10	23	23	24	20	30	32	30	24	13	10	9.4
28	9.7	18	25	22	30	32	30	28	21	13	10	11
29	9.2	17	31	21	38	73	30	26	20	13	10	13
30	8.8	16	29	20	---	74	29	61	20	13	10	12
31	8.8	---	25	21	---	50	---	84	---	12	10	---
TOTAL	310.7	460.9	724	692	639	973	1159	940	815	561	383	331.6
MEAN	10.0	15.4	23.4	22.3	22.0	31.4	38.6	30.3	27.2	18.1	12.4	11.1
MAX	18	31	39	27	38	74	64	84	55	33	21	21
MIN	8.2	7.6	14	19	18	17	29	23	20	12	10	9.3
CFSM	1.23	1.90	2.89	2.75	2.71	3.87	4.76	3.74	3.35	2.23	1.53	1.37
IN	1.43	2.11	3.32	3.17	2.93	4.46	5.32	4.31	3.74	2.57	1.76	1.52

CAL YR 1983 TOTAL 6612.2 MEAN 18.1 MAX 62 MIN 7.6 CFSM 2.23 IN 30.33
WTR YR 1984 TOTAL 7989.2 MEAN 21.8 MAX 84 MIN 7.6 CFSM 2.69 IN 36.65

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 13...	1200	13	40	4.5	16.0	7.7	--	<1.2	50	34
FEB 07...	1015	20	46	4.6	3.0	13.2	--	<1.1	<20	4
APR 02...	1030	38	52	4.2	6.0	10.8	--	E.7	<20	6
MAY 31...	1015	90	52	4.1	13.5	8.1	--	<1.1	230	350
JUL 17...	1100	13	37	4.4	20.5	6.7	74	<.6	<20	130
AUG 09...	1100	10	35	4.4	19.5	5.9	64	<.1	<20	350
SEP 27...	1120	9.4	38	4.9	17.0	7.8	79	E.3	<20	4

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 13...	5	.90	.67	3.4	.70	<1.0	6.8	6.3	<.10
FEB 07...	4	.69	.65	3.0	.50	4.0	7.3	6.2	<.10
APR 02...	5	.80	.62	3.5	.50	<1.0	5.6	6.9	<.10
MAY 31...	3	.62	.42	3.3	.30	<1.0	6.3	5.4	<.10
JUL 17...	3	.52	.41	2.9	.50	<1.0	3.4	5.7	<.10
AUG 09...	3	.45	.39	2.6	.40	1.0	3.1	5.5	<.10
SEP 27...	3	.55	.37	2.6	.50	1.0	3.8	5.6	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	8.7	31	.003	<.05	<.050	.26	--	.060	4.5
FEB 07...	5.8	28	.003	<.05	<.050	.15	--	.020	3.7
APR 02...	4.3	26	.003	<.05	<.050	.30	--	<.020	5.6
MAY 31...	2.6	60	.004	<.05	<.050	.48	--	.030	13
JUL 17...	6.9	36	.003	.05	.070	.28	.33	.060	4.4
AUG 09...	6.9	32	.003	<.05	.090	.22	--	.030	4.8
SEP 27...	7.8	25	.004	<.05	.090	.12	--	.030	1.5

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
13...	1200	<.5	--	--	100	1	--	<10	40	3	--
SEP											
27...	1120	--	<.1	.7	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
13...	20	--	--	<10	--	240	--	8	--	<10	--
SEP											
27...	--	1	<10	--	<1	--	70	--	<10	--	<10

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	<.1	--	7	--	<1	--	40	--	1	--	--
SEP											
27...	--	<.01	--	<10	--	<1	--	1	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.1	<1.0	4.3	1.8	6.8	<.1	<.1	<.1	<.1	<.1	.2

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01410500 ABSECON CREEK AT ABSECON, NJ

LOCATION.--Lat 39°25'45", long 74°31'16", Atlantic County, Hydrologic Unit 02040302, on right bank 30 ft downstream from Doughty Pond Dam of Atlantic City Water Department, 1.0 mi west of Absecon, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--17.9 mi^2 (revised).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1923 to April 1929 and June 1933 to December 1938 (monthly discharge only, published in WSP 1302; figures of daily discharge published in previous water-supply papers included diversions above station), May 1946 to December 1984 (discontinued).

GAGE.--Water-stage recorder, concrete control and downstream tidal crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 1946, water-stage recorder and wooden control at same site at datum 0.16 ft lower.

REMARKS.--Water-discharge records fair. Records represent flow at gage only. Diversion from Doughty Pond for municipal supply at Atlantic City (records given herein). Flow regulated by Doughty Pond, capacity, 245,000,000 gal directly above station, and by Kuehule Reservoir, capacity, 250,000,000 gal, 1.5 mi above station.

AVERAGE DISCHARGE.--47 years (water years 1925-28, 1934-38, 1947-84), 26.6 ft^3/s, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 295 ft^3/s Sept. 6, 1935; no flow several days in many years.

EXTREMES FOR CURRENT PERIOD.-- Water year 1984: Maximum daily discharge, 230 ft^3/s Mar. 29; minimum daily, 5.7 ft^3/s Oct. 10.

OCTOBER TO DECEMBER 1984: Maximum daily discharge during period, 32 ft^3/s Dec. 6; minimum daily, 7.4 ft^3/s Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	10	24	34	25	57	45	33	74	11	16	10
2	31	9.5	21	27	23	36	43	31	60	9.5	16	8.1
3	18	15	22	22	21	32	38	31	52	8.8	16	10
4	14	16	25	20	32	27	40	50	45	7.4	17	10
5	9.5	12	35	19	32	27	78	60	41	9.5	20	12
6	9.5	13	47	19	27	35	74	58	47	11	26	10
7	6.8	7.4	35	19	26	41	57	57	44	21	17	8.1
8	6.2	7.4	28	19	21	37	45	57	40	13	13	8.8
9	6.2	7.4	24	18	23	36	40	57	44	10	13	9.5
10	5.7	18	21	18	25	31	40	57	44	13	14	10
11	6.2	32	20	27	25	26	37	38	21	13	20	12
12	23	26	21	22	24	29	36	21	17	9.5	31	12
13	21	15	24	20	23	25	36	17	16	13	28	12
14	14	14	45	19	21	95	45	28	17	10	21	12
15	11	26	35	19	40	107	52	50	30	16	19	14
16	8.1	91	32	19	55	62	67	52	52	25	17	10
17	10	48	28	18	37	48	60	47	60	37	15	9.5
18	9.5	29	25	19	31	36	50	47	62	50	15	10
19	9.5	23	23	19	26	35	52	47	55	31	20	10
20	7.4	18	21	19	26	35	44	44	52	31	23	10
21	7.4	32	22	19	24	33	41	41	48	31	19	10
22	6.8	26	41	18	23	35	33	26	44	27	16	8.8
23	22	21	60	18	25	36	52	17	38	25	17	8.1
24	31	25	45	19	41	28	55	18	40	17	18	8.8
25	22	48	18	23	41	29	48	14	43	17	14	8.8
26	18	37	19	36	37	37	38	15	38	21	15	10
27	14	27	20	25	23	35	33	17	36	18	15	8.1
28	10	24	19	22	28	44	33	15	29	17	16	14
29	14	30	30	20	78	230	33	29	14	17	15	18
30	7.4	26	50	23	---	91	33	100	12	17	13	14
31	8.8	---	40	27	---	60	---	110	---	17	12	---
TOTAL	407.0	733.7	920	666	883	1515	1378	1284	1215	573.7	547	316.6
MEAN	13.1	24.5	29.7	21.5	30.4	48.9	45.9	41.4	40.5	18.5	17.6	10.6
MAX	31	91	60	36	78	230	78	110	74	50	31	18
MIN	5.7	7.4	18	18	21	25	33	14	12	7.4	12	8.1
(†)	8.1	5.8	2.6	3.3	3.5	4.1	4.7	4.5	6.5	7.6	9.1	7.6

CAL YR 1983 TOTAL 7686.80 MEAN 21.1 MAX 95 MIN .85 † 7.0
WTR YR 1984 TOTAL 10439.0 MEAN 28.5 MAX 230 MIN 5.7 † 5.6

† Diversion, in cubic feet per second, above station from Doughty Pond for municipal supply by Atlantic City.

01410500 ABSECON CREEK AT ABSECON, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	10	14									
2	20	14	12									
3	17	8.1	14									
4	14	8.1	14									
5	12	14	11									
6	10	14	32									
7	10	11	26									
8	12	8.1	18									
9	12	8.8	16									
10	13	8.8	15									
11	12	16	15									
12	13	31	14									
13	13	26	14									
14	11	17	13									
15	7.4	9.5	14									
16	8.1	14	13									
17	8.8	13	14									
18	10	10	14									
19	10	12	13									
20	10	14	13									
21	9.5	15	14									
22	10	14	17									
23	13	14	12									
24	13	14	11									
25	14	13	14									
26	13	13	9.5									
27	13	14	10									
28	12	14	8.8									
29	14	17	9.5									
30	14	14	11									
31	12	---	8.1									
TOTAL	379.8	409.4	433.9									
MEAN	12.3	13.6	14.0									
MAX	20	31	32									
MIN	7.4	8.1	8.1									
(†)	6.3	5.4	4.6									

CAL YR 1984 TOTAL 9601.4 MEAN 26.2 MAX 230 MIN 7.4 † 5.6

† Diversion, in cubic feet per second, above station from Doughty Pond for municipal supply by Atlantic City.

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ

LOCATION.--Lat 39°44'02", long 74°57'05", Camden County, Hydrologic Unit 02040302, at bridge on Sicklerville-New Freedom Road (Spur 536), 1.5 mi northeast of Sicklerville, and 2.7 mi upstream of New Brooklyn Lake dam.

DRAINAGE AREA.--15.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 26...	1030	38	190	5.9	1.0	10.9	77	2.1	33	350
MAR 22...	1020	24	102	6.2	7.0	7.6	64	2.2	<2	920
MAY 21...	1130	8.5	94	6.2	16.0	8.0	81	1.5	130	350
JUL 19...	0930	35	71	5.3	19.0	4.1	44	1.6	170	230
AUG 08...	1015	9.4	100	6.4	20.0	6.1	67	1.0	20	2400
SEP 25...	1130	6.6	126	6.4	18.0	5.2	55	.6	50	790

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 26...	23	5.9	2.1	24	1.8	8.0	16	41	<.10
MAR 22...	19	4.7	1.7	9.4	1.8	3.0	14	14	<.10
MAY 21...	18	4.6	1.6	8.7	1.6	4.0	13	12	<.10
JUL 19...	15	3.7	1.3	6.2	1.3	3.0	12	10	<.10
AUG 08...	20	5.0	1.8	9.6	2.2	11	10	13	<.10
SEP 25...	23	5.9	2.1	13	3.4	13	13	14	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 26...	4.4	116	.015	.69	.490	1.0	1.7	.220	8.2
MAR 22...	3.9	74	.014	.83	.510	1.5	2.3	.240	9.1
MAY 21...	4.3	152	.007	.93	.060	.52	1.5	.280	9.7
JUL 19...	5.4	95	.014	.28	.090	E1.4	--	.280	22
AUG 08...	5.9	89	.012	1.2	.060	.76	1.9	.400	12
SEP 25...	6.6	84	.021	2.7	.130	.91	3.7	.840	4.5

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY									
21...	1130	<.5	180	1	<10	70	<1	10	5
SEP									
25...	1130	<.5	40	1	<10	80	1	<10	1

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
21...	680	5	20	.1	5	<1	20	2
SEP								
25...	430	<1	10	<.1	2	<1	10	3

01410820 GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR, NJ

LOCATION.--39°40'09", long 74°54'49", Camden County, Hydrologic Unit 02040302, downstream side of bridge on Broad Lane Road, 1.9 mi southwest of Blue Anchor, and 2.1 mi downstream from confluence of Fourmile Branch.

DRAINAGE AREA.--37.3 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN										
26...	0920	96	126	5.5	1.5	11.5	82	1.1	33	5400
MAR										
22...	0915	88	77	5.5	7.0	8.4	70	1.0	20	230
MAY										
21...	1000	52	75	6.3	15.0	7.4	74	1.9	130	170
JUL										
19...	0800	88	67	5.4	19.0	5.3	57	2.0	1700	220
AUG										
08...	0900	45	73	6.3	20.0	7.0	77	1.2	110	9200
SEP										
25...	0900	30	84	6.5	17.5	7.3	76	.9	13	1600

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN									
26...	19	4.2	2.1	13	1.6	7.0	14	24	<.10
MAR									
22...	15	3.4	1.6	6.4	1.4	3.0	11	11	<.10
MAY									
21...	15	3.3	1.6	6.6	1.6	5.0	5.6	9.7	<.10
JUL									
19...	12	2.8	1.3	5.2	1.3	3.0	11	9.7	<.10
AUG									
08...	15	3.3	1.6	6.7	1.6	7.0	9.6	9.6	<.10
SEP									
25...	15	3.3	1.7	7.5	2.0	8.0	7.4	9.5	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
26...	4.7	79	.012	.89	.190	.57	1.5	.110	7.9
MAR									
22...	3.8	58	.005	.85	.170	.68	1.5	.100	8.7
MAY									
21...	4.6	68	.015	1.0	.160	.68	1.7	.270	8.1
JUL									
19...	5.6	80	.017	.58	.100	1.1	1.6	.240	19
AUG									
08...	5.8	66	.034	1.3	.140	.62	1.9	.260	9.0
SEP									
25...	5.5	56	.049	1.9	.230	1.1	3.1	.390	3.1

01410820 GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY 21...	1000	<.5	--	--	120	2	--	<10	50	<1	--
SEP 25...	0900	<.5	<.1	1.9	60	1	1	<10	40	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY 21...	10	--	--	3	--	790	--	3	--	10	--
SEP 25...	<10	<1	<10	2	0	440	3500	<1	10	<10	6

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 21...	<.1	--	4	--	<1	--	20	--	<1	--	--
SEP 25...	.4	<.01	3	<10	<1	<1	20	5	<1	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 21...	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.1	1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 21...	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County, Hydrologic Unit 02040302, on left bank 25 ft upstream from bridge on State Highway 54, 1.0 mi south of Folsom, and 2.0 mi upstream from Pennypot Stream.

DRAINAGE AREA.--57.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1925 to current year. Prior to October 1947, published as "Great Egg River at Folsom".

REVISED RECORDS.--WSP 1432: 1928(M), 1933. WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 26, 1934. Datum of gage is 53.32 ft National Geodetic Vertical Datum of 1929. Prior to Mar. 6, 1941, water-stage recorder at site 100 ft downstream at same datum. Mar. 6 to Oct. 5, 1941, nonrecording gage at site 145 ft downstream at datum 0.25 ft higher.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--59 years, 86.8 ft³/s, 20.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s Sept. 3, 1940, gage height, 9.09 ft; minimum, 15 ft³/s Sept. 6, 1957, Aug. 28-30, 1966; minimum gage height, 3.42 ft Aug. 28-30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 455 ft³/s June 1, gage height, 6.02 ft; minimum, 37 ft³/s Sept. 10, 11, 12, gage height, 3.59 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	47	120	147	104	193	328	129	445	77	73	46
2	50	47	107	127	102	183	263	126	383	91	72	45
3	51	46	98	112	97	154	211	118	288	114	71	45
4	46	48	102	102	96	131	176	114	216	128	70	59
5	42	51	126	98	99	117	221	115	169	117	79	63
6	40	51	176	97	101	121	339	123	136	102	78	58
7	40	49	196	95	99	134	374	122	116	96	76	53
8	39	48	181	93	92	139	330	119	103	102	69	51
9	38	47	157	90	85	134	264	129	94	123	66	48
10	38	50	133	88	80	122	211	144	86	145	64	47
11	37	70	117	96	79	116	175	143	80	146	62	47
12	41	80	112	101	81	113	150	130	74	133	63	47
13	50	88	129	99	83	118	137	118	70	127	65	46
14	53	87	177	95	85	178	130	108	76	113	66	45
15	52	86	211	91	103	282	129	100	83	89	70	68
16	49	104	204	87	138	319	153	95	80	76	74	83
17	47	123	178	82	187	299	194	90	77	72	71	94
18	45	160	149	80	190	257	216	87	83	73	63	89
19	43	149	127	78	170	217	207	85	99	88	60	75
20	43	130	111	77	147	185	182	85	112	104	59	62
21	43	130	100	76	126	159	157	85	117	109	56	56
22	43	126	103	68	111	141	140	83	104	104	54	54
23	44	144	124	76	103	130	136	81	90	113	52	52
24	59	142	152	74	117	121	144	85	78	118	52	51
25	66	151	147	87	144	116	159	93	78	108	51	50
26	68	175	121	104	164	121	158	93	82	95	50	48
27	64	201	108	125	149	134	145	90	81	79	49	47
28	60	188	109	124	148	157	132	86	77	75	47	52
29	54	162	130	116	167	214	125	87	73	79	51	61
30	51	138	155	108	---	320	124	157	69	79	48	66
31	49	---	165	106	---	360	---	348	---	76	47	---
TOTAL	1485	3118	4325	2999	3447	5485	5810	3568	3719	3151	1928	1708
MEAN	47.9	104	140	96.7	119	177	194	115	124	102	62.2	56.9
MAX	68	201	211	147	190	360	374	348	445	146	79	94
MIN	37	46	98	68	79	113	124	81	69	72	47	45
CFSM	.84	1.82	2.45	1.69	2.08	3.10	3.40	2.01	2.17	1.79	1.09	1.00
IN	.97	2.03	2.82	1.95	2.25	3.57	3.79	2.32	2.42	2.05	1.26	1.11

CAL YR 1983 TOTAL 37438 MEAN 103 MAX 406 MIN 22 CFSM 1.80 IN 24.39
WTR YR 1984 TOTAL 40743 MEAN 111 MAX 445 MIN 37 CFSM 1.94 IN 26.54

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ

LOCATION.--Lat 39°30'50", long 74°46'47", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi upstream from Deep Run, and 20.9 mi upstream from mouth.

DRAINAGE AREA.--154 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 14...	0930	E249	65	5.0	7.0	11.7	97	.6	<2	21
MAR 22...	0800	E405	66	4.5	7.0	9.2	77	.8	2	8
MAY 22...	0915	E254	53	5.2	17.0	8.2	85	1.4	5	240
AUG 08...	0800	E220	49	5.7	23.0	6.9	81	2.2	80	1600
29...	0900	E159	52	6.1	17.5	8.1	84	.7	170	920

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 14...	11	2.3	1.2	4.6	1.1	2.0	9.0	8.4	<.10
MAR 22...	10	2.3	1.1	4.7	1.0	2.0	9.5	9.1	<.10
MAY 22...	9	2.0	1.0	4.0	1.0	2.0	4.0	8.0	<.10
AUG 08...	9	2.0	1.0	4.1	1.1	3.0	9.3	8.0	<.10
29...	10	2.1	1.1	4.4	1.2	3.0	6.1	7.8	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 14...	5.0	48	.008	.60	.140	.60	1.2	.060	5.5
MAR 22...	2.6	46	.003	.33	.080	.34	.67	.040	7.7
MAY 22...	3.7	35	.006	.44	.050	.35	.79	.090	8.6
AUG 08...	5.8	50	.010	.34	.190	.90	1.2	.130	11
29...	6.1	44	.003	.62	.120	.57	1.2	.070	4.9

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY									
22...	0915	<.5	20	1	<10	40	1	30	28

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
22...	1500	4	30	.1	9	<1	80	<1

TUCKAHOE RIVER BASIN

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ

LOCATION.--Lat 39°18'25", long 74°49'15", Cape May County, Hydrologic Unit 02040302, on right bank at highway bridge on State Route 49, 0.2 mi upstream from McNeals Branch, 0.4 mi southeast of Head of River, and 3.7 mi west of Tuckahoe.

DRAINAGE AREA.--30.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1969 to current year.

REVISED RECORDS.--WDR NJ-78-1: 1975(M), 1976(M).

GAGE.--Water-stage recorder, wooden control, and downstream tidal crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 25 ft³/s, which are fair. Occasional regulation by ponds above station.

AVERAGE DISCHARGE.--14 years, 46.5 ft³/s, 20.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 510 ft³/s May 31, 1984, elevation, 6.17 ft; maximum elevation, 7.01 ft; minimum daily, 1.3 ft³/s Sept. 3, 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 510 ft³/s May 31, elevation, 6.17 ft maximum elevation, 7.01 ft; minimum daily discharge,
16 ft³/s Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	23	52	62	58	118	161	115	414	37	27	23
2	36	24	49	55	56	95	122	115	254	36	26	22
3	36	25	47	54	51	80	105	98	170	35	28	21
4	29	30	61	53	57	71	105	87	128	34	30	21
5	26	31	81	54	64	69	181	81	102	33	43	23
6	21	30	83	54	62	91	214	76	86	36	57	24
7	21	28	85	53	57	103	185	76	82	39	50	22
8	21	26	80	51	52	93	153	77	76	51	42	21
9	20	25	68	49	48	88	120	83	68	47	36	21
10	20	29	59	49	46	82	94	80	60	41	32	21
11	21	43	54	74	48	74	88	74	55	43	31	20
12	27	48	58	80	51	71	82	68	50	43	37	21
13	40	42	79	69	50	85	76	64	47	39	40	21
14	37	37	102	62	50	194	85	60	45	36	40	21
15	31	43	96	60	64	190	105	57	46	33	35	23
16	27	100	82	56	95	149	150	54	44	32	31	26
17	25	121	71	52	92	115	170	53	44	31	29	26
18	23	90	62	51	78	95	143	53	63	39	27	25
19	23	67	56	54	69	85	124	51	93	71	30	22
20	23	55	52	52	63	79	112	50	92	65	34	21
21	20	62	49	50	58	82	104	48	74	47	32	21
22	16	73	63	50	54	83	92	46	60	45	28	20
23	17	66	94	50	54	79	101	45	51	41	26	19
24	30	57	88	50	88	75	129	56	46	37	26	19
25	66	83	66	69	104	80	132	58	50	34	25	18
26	44	120	59	82	87	106	108	52	49	31	25	19
27	24	103	51	77	73	115	94	54	45	30	25	19
28	23	79	56	70	95	124	83	58	41	30	24	23
29	22	66	84	63	137	270	86	61	39	30	23	27
30	21	58	87	58	---	269	94	212	38	[illegible]9	24	27
31	22	---	69	58	---	203	---	464	---	[illegible]9	23	---
TOTAL	838	1684	2143	1821	1961	3513	3598	2626	2512	1204	986	657
MEAN	27.0	56.1	69.1	58.7	67.6	113	120	84.7	83.7	38.8	31.8	21.9
MAX	66	121	102	82	137	270	214	464	414	71	57	27
MIN	16	23	47	49	46	69	76	45	38	29	23	18

CAL YR 1983 TOTAL 23034 MEAN 63.1 MAX 325 MIN 15
WTR YR 1984 TOTAL 23543 MEAN 64.3 MAX 464 MIN 16

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1984

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Hudson River basin				
01367620	Wallkill River at outflow of Lake Mohawk at Sparta, NJ	Lat 41°01'59", long 74°37'36", Sussex County, at bridge on West Shore Trail, at Sparta, 200 ft downstream from outflow of Lake Mohawk, and 1.2 mi southwest of Sparta Station.	4.38	1979-84	9-11-84	1.7
01368950	Black Creek near Vernon, NJ	Lat 41°13'21", long 74°28'33", Sussex County, at bridge on Maple Grange Road, 0.6 mi upstream of confluence with Wawayanda Creek, 0.7 mi northwest of Maple Grange, and 1.7 mi northeast of Vernon.	17.3	1980-84	9-11-84	7.1
		Passaic River basin				
01379150	Harrisons Brook at Liberty Corner, NJ	Lat 40°40'27", long 74°34'14, Somerset County, at bridge on Lyons Road, 0.8 mi northeast of Liberty Corner, and 1.6 mi upstream from mouth.	3.74	1964-67, 1983-84	9-21-84	0.40
01379300	Passaic River at Stirling, NJ	Lat 40°39'57", long 74°28'57, Morris County, at bridge on Plainfield Road, 0.2 mi south of Passaic Valley Road, 0.8 mi southeast of center of Stirling, and 4.1 mi below Dead River.	84.1	1968-73, 1983-84	9-19-84	17
01379750	Rockaway River at Dover, NJ	Lat 40°54'12, long 74°34'36", Morris County, 500 ft downstream from Main Street, at Carpenter Plant, 0.5 mi upstream from Green Pond Brook, and 1.4 mi northwest of Dover.	30.8	1963-66, 1983-84	9-05-84	9.2
*01381200	Rockaway River at Pine Brook, NJ	Lat 40°51'42, long 74°20'53", Morris County, at bridge on U.S. Route 46, 0.9 mi west of Pine Brook, and 1.1 mi upstream of Whippany River.	136	1963-73, 1979-81, 1983-84	*a1-06-83 9-18-84	103 13
01381800	Whippany River near Pine Brook, NJ	Lat 40°50'42", long 74°20'51", Morris County, at bridge on Edwards Road, 0.3 mi upstream from mouth, and 1.3 mi southwest of Pine Brook.	68.5	1963-68, 1978, 1979-81, 1983-84	9-18-84	41
01382000	Passaic River at Two Bridges, NJ	Lat 40°53'50", long 74°16'23", Essex County, at bridge on Two Bridges Road, just upstream of confluence with Pompton River, 0.3 mi northeast of Two Bridges, and 2.6 mi northwest of Little Falls.	361	b1901-03, 1963-68, 1983-84	9-19-84	150
01389000	Pompton River at Two Bridges, NJ	Lat 40°53'52", long 74°16'22", Essex County, at bridge on Two Bridges Road, just above mouth, 0.3 mi northeast of Two Bridges, and 2.6 mi northwest of Little Falls.	380	b1901-03, 1963-68, 1984	9-19-84	96.7

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01389100	Singac Brook at Singac, NJ	Lat 40°53'37", long 74°15'57", Passaic County, at bridge on Fairfield Road, between U.S. Routes 80 and 46, 60 ft upstream from mouth, 1.2 mi northwest of Singac, and 1.8 mi northwest of Little Falls.	11.1	1968-67, 1983-84	9-19-84 10-12-83	18 19
01389600	Peckman River at West Paterson, NJ	Lat 40°53'32", long 74°12'43", Passaic County, at bridge on McBride Avenue, 0.2 mi upstream from mouth, 0.7 mi west of West Paterson, and 3.2 mi southwest of Paterson.	10.1	1963-67, 1983-84	10-11-83	9.3
01389790	Molly Ann Brook at Paterson, NJ	Lat 40°54'52", long 74°11'26", Passaic County, at bridge on Totowa Avenue, 0.1 mi upstream from mouth, and 1.8 mi west of Paterson.	7.73	1963-72, 1983-84	9-19-84	2.2
01389850	Goffle Brook at Hawthorne, NJ	Lat 40°56'20", long 74°09'48", Passaic County, at bridge on Wagaraw Road, 0.1 mi upstream from mouth, 1.1 mi southwest of Hawthorne, and 1.9 mi north of Paterson.	8.77	1963-67, 1983-84	9-20-84	2.7
		Rahway River basin				
01396030	South Branch Rahway River at Colonia, NJ	Lat 40°34'57", long 74°18'04", Middlesex County, at bridge on Dover Road in Colonia, 0.7 mi northeast of Iselin, and 3.5 mi northeast of Metuchen.	9.41	1979-84	9-11-84	2.0
		Raritan River basin				
01397290	Assiscong Creek at Bartles Corners, NJ	Lat 40°32'23", long 74°50'52" Hunterdon County, at bridge on River Road, 0.3 mi upstream from mouth, 1.5 mi north of Flemington, and 2.8 mi west of Three Bridges.	2.98	1981-84	9-11-84	.40
01397800	Neshanic River near Flemington, NJ	Lat 40°28'46", long 74°51'29" Hunterdon County, at bridge on Kuhl Road, 200 ft downstream from confluence of First Neshanic River and Second Neshanic River, 1.4 mi south of Flemington, and 2.1 mi west of Reaville.	11.4	1981-84	9-11-84	0.26
01397900	Third Neshanic River near Ringoes, NJ	Lat 40°27'31", long 74°52'05", Hunterdon County, at bridge on Eitts Road, 2.0 mi upstream from mouth, 2.1 mi north of Ringoes, and 3.0 mi southwest of Reaville.	9.24	1981-84	9-11-84	1.26
01398052	Back Brook near Reaville, NJ	Lat 40°27'32", long 74°49'24", Hunterdon County, at bridge on Manners Road, 0.6 mi upstream from mouth, 0.8 mi northwest of Wertsville, and 1.5 mi southeast of Reaville.	11.4	1981-84	9-11-84	.41
01398075	Pleasant Run at Centerville, NJ	Lat 40°32'17", long 74°45'17", Hunterdon County, at bridge on Old York Road in Centerville, 2.4 mi northwest of Neshanic Station, 2.5 mi upstream from mouth, and 2.7 mi northwest of Three Bridges.	8.11	1982-84	9-11-84	.45
01398260	North Branch Raritan River near Chester, NJ	Lat 40°46'16", long 74°37'34", Morris County, at bridge on State Route 24, 0.8 mi upstream from Burnett Brook, and 3.8 mi east of Chester.	7.57	1964-67, 1980-84	11-06-84	8.71
01401400	Heathcote Brook at Kingston, NJ	Lat 40°22'10", long 74°36'59", Middlesex County, at bridge on Mapleton Road, at former Penn Central railroad bridge, 0.3 mi south of Kingston, and 0.4 mi upstream from mouth.	9.00	1979-84	9-12-84	2.1
01403330	Bound Brook at South Plainfield, NJ	Lat 40°34'43", long 74°24'45", Middlesex County, at bridge on Hamilton Road in South Plainfield, 0.5 mi upstream from Cedar Brook, and 1.9 mi east of New Market.	9.55	1979-84	9-11-84	3.2

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Raritan River basin--Continued				
01403350	Cedar Brook at South Plainfield, NJ	Lat 40°34'57", long 74°24'53", Middlesex County, at bridge on Lakeview Road in South Plainfield, 0.4 mi upstream from mouth, and 2.0 mi east of Dunellen.	7.1	1982, 1984	9-11-84	.74
01404060	Ambrose Brook at Middlesex, NJ	Lat 40°34'03", long 74°31'02", Middlesex County, at dam, 900 ft upstream from bridge on State Route 18 in Middlesex, and 0.7 mi upstream from mouth.	13.9	1979-84	9-11-84	1.7
01404180	Mill Brook at Highland Park, NJ	Lat 40°30'23", long 74°25'51", Middlesex County, at bridge on Harrison Street in Highland Park, 0.7 mi upstream from mouth, and 0.9 mi northeast of New Brunswick.	1.41	1979-84	9-11-84	.26
01405170	Milford Brook at Englishtown, NJ	Lat 40°18'02", long 74°20'07", Monmouth County, at bridge on Conmack Road, 0.6 mi upstream from McGellairds Brook, 1.2 mi east of Englishtown, and 2.0 mi southwest of Gordons Corner.	4.86	1982, 1984	9-12-84	3.9
01405180	McGellairds Brook at Englishtown, NJ	Lat 40°18'06", long 74°21'26", Monmouth County, at bridge on on Wilson Avenue in Englishtown, 0.8 mi downstream from Milford Brook, 1.0 mi southeast of Monmouth-Middlesex County line, and 5.5 mi northwest of Freehold.	14.9	1982, 1984	9-12-84	11.8
01405210	Pine Brook at Clarks Mills, NJ	Lat 40°18'58", long 74°19'51", Monmouth County, at bridge on Winthrop Drive, 1.3 mi east of Clarks Mills, 1.9 mi upstream of Matchaponix Brook, and 4.8 mi northwest of Freehold.	4.66	1982, 1984	9-12-84	3.8
01405240	Matchaponix Brook near Englishtown, NJ	Lat 40°19'21", long 74°21'35", Middlesex County, at bridge on Union Hill Road, 1.7 mi north 2.8 mi northwest of Gordons Corner.	29.1	1979-84	9-12-84	29
01405285	Barclay Brook near Englishtown, NJ	Lat 40°20'53", long 74°21'27", Middlesex County, at bridge on State Route 527 (Old Bridge-Englishtown Road), 0.6 mi south of Redshaw Corner, 0.9 mi upstream from mouth, and 3.5 mi north of Englishtown.	4.94	1979-84	a8-17-83 9-13-84	0.68 1.3
01405300	Matchaponix Brook at Spotswood, NJ	Lat 40°22'53", long 74°22'51", Middlesex County, on right bank 0.9 mi southeast of Spotswood, 1.1 mi upstream from confluence with Manalapan Brook, and 2.3 mi southwest of Old Bridge.	43.9	1952-6‡, 1968-84c	9-13-84	28
01405335	Manalapan Brook near Manalapan, NJ	Lat 40°16'45", long 74°22'53", Monmouth County, at bridge on South Main Street, 1.8 mi northeast of Manalapan, 1.8 mi southwest of Englishtown, and 5.6 mi southeast of Jamesburg.	16.0	1979-84	9-13-84	12.1
01406000	Deep Run near Browntown, NJ	Lat 40°22'30", long 74°18'14", Middlesex County, upstream from highway bridge, 0.7 mi downstream from the Middlesex-Monmouth County line, and 1.8 mi south of Browntown.	8.07	1933-40‡, 1982, 1984	9-13-84	3.1
		Mullica River basin				
*01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Camden County, 50 ft downstream from Jackson-Medford Road and 1.8 mi northeast of Pennsylvania-Reading Seashore Lines railroad and Atco Street in Atco.	3.22	1975-84	9-18-84	2.9
01409390	Mullica River at Atsion, NJ	Lat 39°44'19", long 74°43'20", Burlington County, at abandoned bridge on Central Railroad of New Jersey in Atsion, 500 ft downstream from Wesickaman Creek, and 0.3 mi southeast of Atsion.	33.1	1975-84	9-18-84	24

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Mullica River basin--Continued				
01409410	Albertson Brook near Hammonton, NJ	Lat 39°41'41", long 74°45'21", Atlantic County, at bridge on U.S. Route 206, 3.1 mi downstream from confluence of Pump Branch and Blue Anchor Brook, 3.5 mi south of Atsion, and 5.2 mi northeast of Hammonton.	19.3	1975-84	9-18-84	24
01409411	Nescochague Creek at Pleasant Mills, NJ	Lat 39°38'28", long 74°39'43", Atlantic County, at bridge on Sand Road in Pleasant Mills, 0.2 mi upstream from Mullica River, and 0.6 mi west of Batsto.	43.7	1975-84	a6-17-83 a8-17-83 9-18-84	60 33.6 52.7
		Great Egg Harbor River basin				
01411053	Hospitality Branch at Berryland, NJ	Lat 39°36'31", long 74°54'34", Gloucester County, at bridge on Piney Hollow Road, 0.3 mi southwest of Berryland, 1.2 mi upstream of Oak Branch and 3.4 mi west of Folsom.	20.0	1976-84	9-20-84	22
01411140	Deep Run at Weymouth, NJ	Lat 39°30'26", long 74°46'56", Atlantic County, at bridge on State Highway 559, 0.3 mi upstream of mouth, and 0.5 mi southwest of Weymouth.	20.0	1976-84	9-20-84	19

* Also a crest-stage partial-record station.
a Revised.
b Discharge measurement and gage heights only.
c Operated by Duhernal Water Company. Recorder charts on file in U.S. Geological Survey, Trenton Office.
‡ Operated as a continuous-record gaging station.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Hackensack River basin					
*01377475	Musquapsink Brook near Westwood, NJ	Lat 40°59'41", long 74°03'42", Bergen County, at bridge on Pascack Road in Washington Borough, 1.5 mi west of Westwood, and 5.3 mi above mouth. Datum of gage before 1973 was 69.67 ft National Geodetic Vertical Datum of 1929.	2.12	1965-84	7-07-84	b0.92	405
01377490	Musquapsink Brook at Westwood, NJ	Lat 40°59'11", long 74°02'03", Bergen County, at footbridge at Bogert Pond, 8 ft upstream from dam near intersection of Mill Street and First Avenue in Westwood. Datum of gage is 47.67 ft National Geodetic Vertical Datum of 1929.	6.53	1966-84	4-05-84	1.57	280
*01378385	Tenakill Brook at Closter, NJ	Lat 40°58'29", long 73°58'06, Bergen County, at bridge on High Street in Closter, 0.7 mi upstream from mouth. Datum of gage is 23.85 ft National Geodetic Vertical Datum of 1929.	8.56	1965-84	4-05-84	b3.72	665
*01378590	Metzler Brook at Englewood, NJ	Lat 40°54'29", long 73°59'13", Bergen County, at bridge on Lantana Avenue in Englewood, and 1.6 mi upstream from mouth. Datum of gage is 43.10 ft National Geodetic Vertical Datum of 1929.	1.54	1965-84	5-29-84	b1.96	150
*01378615	Wolf Creek at Ridgefield, NJ	Lat 40°49'45", Long 74°00'14", Bergen County, at bridge on Clark Avenue in Ridgefield and 0.9 mi upstream from mouth. Datum of gage is 12.1 ft National Geodetic Vertical Datum of 1929.	1.18	1965-84	7-07-84	b6.24	575
		Passaic River basin					
01378690	Passaic River near Bernardsville, NJ	Lat 40°44'03", long 74°32'26", Somerset County, at bridge on U.S. Route 202, 1.8 mi northeast of Bernardsville, and 3.0 mi upstream from Great Brook. Datum of gage is 238.07 ft National Geodetic Vertical Datum of 1929.	8.83	1968-76‡, 1977-84	7-07-84	b16.46	2,240
01379845	Rockaway River at Warren Street, at Dover, NJ	Lat 40°53'08", long 74°33'36", Morris County, on left bank, 100 ft upstream from bridge on Warren Street, in Dover, 4.0 mi west of Denville and 6 mi southeast of Lake Hopatcong.	47.5	1981-84	4-06-84	7.2	2,170
01387880	Pond Brook at Oakland, NJ	Lat 41°01'36", long 74°14'04", Bergen County, at bridge on NJ Route 208 in Oakland, 0.2 mi upstream from former site at Franklin Avenue (prior to October 1975), 0.6 mi upstream from mouth, and 1.5 mi northwest of Franklin Lakes. Datum of gage is 276.97 ft National Geodetic Vertical Datum of 1929.	6.76	1968-71, 1976-84	4-05-84	3.05	685

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Passaic River basin--Continued					
01389030	Preakness (Singac) Brook near Preakness, NJ	Lat 40°56'55", long 74°13'25", Passaic County, at bridge on Ratzer Road, 1.0 mi north of Preakness, and 2.0 mi upstream from Naachtpunkt Brook.	3.24	1979-84	5-29-84	b4.90	880
01389534	Peckman River at Ozone Avenue at Verona, NJ	Lat 40°50'42", long 74°14'09", Passaic County, at bridge on Ozone Avenue in Verona, 4.0 mi west of Clifton and 1.0 mi southwest of Cedar Grove Reservoir.	4.45	1979-84	4-05-84	b3.55	780
01389765	Molly Ann Brook at North Haledon, NJ	Lat 40°57'11", long 74°11'07", Passaic County, at bridge on Overlook Avenue in North Haledon, 1.5 mi west of Hawthorne and 0.5 mi upstream from Oldham Pond Dam.	3.89	1979-84	5-29-84	8.87	2,130
01389900	Fleischer Brook at Market Street, Elmwood Park, NJ	Lat 40°53'57", long 74°06'54", Bergen County, at culvert on Market Street in Elmwood Park (formerly East Paterson), and 2.0 mi upstream from mouth. Datum of gage is 35.31 ft National Geodetic Vertical Datum of 1929.	1.37	1967-84	5-29-84	2.49	143
*01390450	Saddle River at Upper Saddle River, NJ	Lat 41°03'32", long 74°05'44", Bergen County, at culvert on Lake Street in Upper Saddle River, and 1.3 mi downstream from Pine Brook. Datum of gage is 186.11 ft National Geodetic Vertical Datum of 1929.	10.9	1966-84	5-29-84	b4.69	2,100
01390810	Hohokus Brook at Allendale, NJ	Lat 41°01'37", long 74°08'44", Bergen County, at bridge on Brookside Avenue in Allendale, and 0.2 mi downstream from Valentine Brook. Datum of gage is 277.46 ft National Geodetic Vertical Datum of 1929.	9.11	1969-84	4-05-84	6.86	800
01390900	Ramsey Brook at Allendale, NJ	Lat 41°01'44", long 74°08'07", Bergen County, at bridge on Brookside Avenue in Allendale and 0.6 mi upstream from Hohokus Brook. Datum of gage is 270.79 ft National Geodetic Vertical Datum of 1929.	2.55	1975-84	4-05-84	b3.44	375
01392500	Second River at Belleville, NJ	Lat 40°47'17", long 74°10'19", Essex County, on Mill Street in Branch Brook Park at Belleville, 300 ft downstream from Franklin Avenue, and 1,100 ft downstream from Hendricks Pond dam. Datum of gage is 62.6 ft National Geodetic Vertical Datum of 1929.	11.6	1937-64‡, 1963-84	7-07-84	6.24	2,570

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Raritan River basin					
01397500	Walnut Brook near Flemington, NJ	Lat 40°30'55", long 74°52'52", Hunterdon County, on right bank 1.2 mi northwest of Flemington, and 2.3 mi upstream from mouth. Datum of gage is 267.33 ft National Geodetic Vertical Datum of 1929.	2.24	1936-61‡, 1963-84	7-07-84	3.98	1,070
01399830	North Branch Raritan River at North Branch, NJ	Lat 40°36'00", long 74°40'27", Somerset County, on right bank 5 ft upstream from bridge on State Highway 28 in North Branch, 0.1 mi south of River Brook, and 3.6 mi upstream from confluence with South Branch Raritan River. Datum of gage is 56.94 ft National Geodetic Vertical Datum of 1929.	174	1977-81‡, 1982-84	7-07-84	19.31	27,300
01400630	Millstone River at Southfield Road near Grovers Mill, NJ	Lat 40°18'12", long 74°34'33", Mercer County, at bridge on Southfield Road, 0.2 mi southeast at Grovers Mill, 3.5 mi southwest of Cranbury, and 3.0 mi upstream of Bear Brook. Datum of gage is 62.63 ft National Geodetic Vertical Datum of 1929.	41.0	1971,1975 1979-84	5-30-84	6.10	700
01400730	Millstone River at Plainsboro, NJ	Lat 40°19'27", long 74°36'51", Mercer County, on left bank 30 ft upstream from railroad bridge on AMTRAK (former Penn Central) mainline, 100 ft downstream from Cranbury Brook, 0.2 mi upstream from Bear Brook, and 0.9 mi southwest of Plainsboro. Datum of gage is 53.41 ft National Geodetic Vertical Datum of 1929.	65.8	1965-75‡, 1976-84	5-30-84	5.95	1,700
01400775	Bear Brook at Route 535 near Locust Corner, NJ	Lat 40°16'41", long 74°34'39", Mercer County, at bridge on State Route 535, 0.9 mi southwest of Locust Corner, 2.0 mi east of Hightstown, and 4.2 mi above mouth. Datum of gage is 73.75 ft National Geodetic Vertical Datum of 1929.	6.69	1971,1975 1979-84	7-07-84	b5.81	460
01400822	Little Bear Brook at Penns Neck, NJ	Lat 40°19'21", long 74°37'37", Mercer County, at downstream side of bridge on Alexander Road, 0.9 mi southeast of Penns Neck, 2.8 mi southwest of Plainsboro and 1.0 mi above mouth. Datum of gage is 53.96 ft National Geodetic Vertical Datum of 1929.	1.84	1971,1975, 1979-84	7-07-84	b2.92	88
01400900	Stony Brook at Glenmoore, NJ	Lat 40°21'55", long 74°47'14", Mercer County, at highway bridge on Spur State Route 518, 200 ft east of tracks of CONRAIL, at Glenmoore, and 2.0 mi southwest of Hopewell. Datum of gage is 159.1 ft National Geodetic Vertical Datum of 1929.	17.0	1957-84	7-07-84	b9.26	4,350

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Raritan River basin--Continued					
*01400930	Baldwin Creek at Pennington, NJ	Lat 40°20'18", long 74°47'50", Mercer County, at bridge on State Route 31, 0.8 mi north of Pennington, and 0.9 mi upstream from Baldwin Lake dam. Datum of gage is 161.69 ft National Geodetic Vertical Datum of 1929.	1.99	1960-84	7-07-84	5.33	290
01400950	Hart Brook near Pennington, NJ	Lat 40°19'17", long 74°45'38", Mercer County, at culvert on Federal City Road, 1.6 mi upstream of mouth, and 1.7 mi southeast of Pennington. Datum of gage after July 1, 1975 is 163.32 ft National Geodetic Vertical Datum of 1929.	0.57	1968-84	7-07-84	3.43	190
01401160	Duck Pond Run near Princeton Junction, NJ	Lat 40°17"47", long 74°38'47", Mercer County, on right bank upstream from bridge on Clarksville Road, 1.5 mi southwest of Princeton Junction, and 4.0 mi south of Princeton. Datum of gage is 72.50 ft National Geodetic Vertical Datum of 1929.	1.35	1980-84	7-07-84	5.03	153
01401200	Duck Pond Run at Clarksville, NJ	Lat 40°18'24", long 74°40'06", Mercer County, at bridge on U.S. Route 1, 0.5 mi upstream from Delaware and Raritan Canal, and 0.9 mi northeast of Clarksville. Datum of gage is 54.14 ft National Geodetic Vertical Datum of 1929. Note: Previously published discharges at this site may be too high due to variable backwater from the Delaware and Raritan Canal.	5.21	1965-84	4-05-84	4.27	†
01401301	Millstone River at Carnegie Lake at Princeton, NJ	Lat 40°22'11", long 74°37'15", Middlesex County, at right end of Carnegie Lake dam, 2.5 mi northeast of Princeton. Datum of gage is 50.00 ft National Geodetic Vertical Datum of 1929.	159	1926-74‡, 1977-84	7-07-84	4.91	6,150
*01401520	Beden Brook near Hopewell, NJ	Lat 40°23'02", long 74°44'28", Mercer County, at bridge on Aunt Molly Road, 0.8 mi upstream from Province Line Road, 1.1 mi southeast of Hopewell, and 2.6 mi southwest of Blawenburg. Datum of gage is 116.43 ft National Geodetic Vertical Datum of 1929.	6.67	1967-84	7-07-84	9.89	5,350
01401595	Rock Brook near Blawenburg, NJ	Lat 40°25'47", long 74°41'05", Somerset County, at bridge on Burnt Hill Road, 0.7 mi upstream from mouth, 1.0 mi northeast of Blawenburg, and 2.8 mi northwest of Rocky Hill. Datum of gage is 63.45 ft National Geodetic Vertical Datum of 1929.	9.03	1967-84	7-07-84	b7.65	2,000
01401600	Beden Brook near Rocky Hill, NJ	Lat 40°24'52", long 74°39'02", Somerset County, at bridge on U.S. Route 206, 0.7 mi upstream from Pike Run, 1.2 mi northwest of Rocky Hill, and 4.6 mi north of Princeton. Datum of gage is 38.09 ft National Geodetic Vertical Datum of 1929.	27.6	1967-84	7-07-84	b12.92	6,200

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Raritan River basin--Continued					
01401870	Six Mile Run near Middlebush, NJ	Lat 40°28'12", long 74°32'42", Somerset County, at bridge on South Middlebush Road, 1.6 mi upstream from mouth, and 2.1 mi south of Middlebush. Datum of gage is 39.91 ft National Geodetic Vertical Datum of 1929.	10.7	1966-84	7-07-84	7.19	1,360
01403395	Blue Brook at Seeleys Pond Dam near Berkeley Heights, NJ	Lat 40°40'02", long 74°24'13", Union County, on wall on right bank, upstream from Seeleys Pond spillway, 300 ft north of Scotch Plains, 1.0 mi west of Mountainside, and 4.5 mi southeast of Berkeley Heights. Datum of gage is 202.05 ft National Geodetic Vertical Datum of 1929.	3.59	1973, 1981-84	7-07-84	4.98	310
		Navesink River basin					
01407290	Big Brook at Marlboro, NJ	Lat 40°19'10", long 74°12'52", Monmouth County, downstream side of bridge on Hillsdale Road, 1.7 mi east of Marlboro, and 3.0 mi northwest of Colts Neck.	6.42	1980-84	5-30-84	b7.88	770
		Manasquan River basin					
*01407830	Manasquan River near Georgia, NJ	Lat 40°12'36", long 74°16'41", Monmouth County, at culvert on Jacksons Mill Road near Georgia, and 0.5 mi upstream from Debois Creek. Datum of gage is 70.47 ft National Geodetic Vertical Datum of 1929.	10.6	1969-84	5-30-84	12.53	725
*01408015	Mingamahone Brook at Farmingdale, NJ	Lat 40°11'38", long 74°09'42", Monmouth County, at bridge on Belmar Road in Farmingdale, and 3.0 mi upstream from mouth. Datum of gage is 48.64 ft National Geodetic Vertical Datum of 1929.	6.20	1969-84	3-29-84	6.41	311
*01408030	Manasquan River at Allenwood, NJ	Lat 40°08'35", long 74°07'03", Monmouth County, at bridge on Hospital Road at Allenwood, and 1.5 mi downstream from Mill Run. Datum of gage is 3.56 ft National Geodetic Vertical Datum of 1929.	63.9	1969-84	3-29-84	b10.40	3,100
		Cedar Creek basin					
**01409000	Cedar Creek at Lanoka Harbor, NJ	Lat 39°52'03", long 74°10'10", Ocean County, at bridge on U.S. Route 9 in Lanoka Harbor, 0.6 mi south of Toms River, and 2.0 mi upstream from mouth. Datum of gage is National Geodetic Vertical Datum of 1929.	53.3,	1932-58‡, 1970-71‡, 1979-84	5-30-84	4.45	1,030

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Mullica River basin					
*01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Burlington County, on left bank of small lake 50 ft downstream from bridge on Jackson-Medford Road, 0.7 mi north of intersection of Route 534 with Jackson-Medford Road, and 1.6 mi east of Atco. Datum of gage is 102.90 ft National Geodetic Vertical Datum of 1929.	3.22	1975-84	5-30-84	b4.50	35.2
*01409403	Wildcat Branch at Chesilhurst, NJ	Lat 39°44'04", long 74°51'33", Camden County, at culvert on Old White Horse Pike, 0.5 mi east of Chesilhurst, and 0.9 mi north of Waterford Works. Datum of gage is 98.98 ft National Geodetic Vertical Datum of 1929.	1.03	1975-84	12-29-83 3-29-84	4.77 4.77	8.0 8.0
*01409409	Blue Anchor Brook near Blue Anchor, NJ	Lat 39°41'17", long 74°51'00", Camden County, at bridge on Spring Garden Road, 4,000 ft upstream of Route 30 highway bridge, 1.8 mi east of Blue Anchor and 2.2 mi upstream from mouth. Datum of gage is 84.94 ft National Geodetic Vertical Datum of 1929.	3.01	1975-84	5-30-84	4.11	16.2
		Great Egg Harbor River basin					
01410810	Fourmile Branch at New Brooklyn, NJ	Lat 39°41'47", long 74°56'25", Camden County, on left bank 70 ft upstream from bridge on Malaga Road, 0.3 mi northeast of New Brooklyn, 0.3 mi upstream from mouth. Datum of is 101.04 ft National Geodetic Vertical Datum of 1929.	7.74	1972-79‡, 1980-84	4-07-84	4.33	89.0

* Also a low-flow partial-record station.
** Also a tidal crest-stage station.
† Discharge not determined.
‡ Operated as a continuous-record gaging station.
b Downstream side of bridge.

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1984

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Passaic River basin				
01379100 Dead River	Passaic River	Lat 40°39'15", long 74°34'35", Somerset County, at bridge on Martinsville Road, (NJ Route 525) 0.2 mi upstream from Harrisons Brook, and 0.7 mi south of Liberty Corner.	7.57	1974-75 1983-84	10-11-83	*0.35
01379175 Dead River	Passaic River	Lat 40°39'01", long 74°34'12", Somerset County, at power line crossing, 100 ft below small pond, 200 ft upstream of unnamed tributary on right bank, and 1.0 ft southeast of Liberty Corner.	12	1983-84	10-11-83 9-21-84	*2.1 *2.6
01379450 Passaic River	Newark Bay	Lat 40°42"49", long 74°24'28", Union County, at bridge on South Street at Oakwood Park, 0.6 mi downstream from Salt Brook, and 2.3 mi southeast of Chatham.	-	1983-84	9-19-84	*30
01379530 Passaic River	Canoe Brook	Lat 40°45'21", long 74°21'43", Essex County, 0.5 mi upstream of mouth, 2.0 mi north of Summit.	11.0	1933-60b 1961-84c	11-10-83 1-23-84 3-12-84 4-25-84 8-27-84	*0 *2.6 5.9 10 1.5
01379550 Passic River	Newark Bay	Lat 40°45'21", long 74°21'43", Morris County, at Lower Chatham bridge on Passaic Avenue in Chatham, and 0.6 mi Southwest of Parsonage Hill Road.	120	1984	9-19-84	*30
01379580 Passaic River	Newark Bay	Lat 40°49'39", long 74°20'07", Morris County, at Swinefield Bridge on Eagle Rock Avenue, 1.0 mi southeast of Hanover Neck, 1.7 mi southwest of West Caldwell, and 2.1 mi upstream from mouth of Rockaway River.	128	1983-84	9-18-84	*35
01379805 Rockaway River	Passaic River	Lat 40°53'29", long 74°34'10", Morris County, 0.5 mi upstream from Jackson Brook, 0.7 mi downstream of Green Pond Brook, and 2.0 mi east of Roxbury.	-	1983-84	9-13-84 9-20-84	32 25
01379807 Rockaway River	Passaic River	Lat 40°53'21", long 74°34'06", Morris County, 0.6 mi upstream of Orlen Pond Brook, 0.9 mi downstream of Jackson Brook, at Water Works Bridge on Rutger State, Dover.	-	1984	7-15-84 8-03-84 9-05-84	131 71.1 *53.9
01379808 Rockaway River	Passaic River	Lat 40°53'17", long 74°34'09", Morris County, 0.2 mi upstream from Jackson Brook, 0.7 mi downstream of Green Pond Brook, and 2.1 mi east of Roxbury.	-	1983-84	9-13-84 9-20-84	32 25
01379809 Rockaway River	Passaic River	Lat 40°53'12", long 74°34'06", Morris County 300 ft upstream of confluence with Jackson Brook, Dover.	-	1984	9-13-84 9-20-84	35 *26
0138000 Beaver Brook	Passaic River	Lat 40°57'38", long 74°27'43", Morris County, 50 ft below Sluice Gates at outlet of Splitrock Pond, 2 mi northeast of Hibernia, and 3.5 mi above mouth of Hibernia Brook.	5.50	1925-46a 1976-84b, 1984	10-26-83 1-17-84 3-15-84 4-19-84 7-11-84 8-29-84	*1.7 7.1 32 38 28 *1.9

DISCHARGE AT PARTIAL-RECORD STAIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1984--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Passaic River basin--Continued				
01381940 Passaic River	Newark Bay	Lat 40°52'56", long 74°20'25", Morris County, at bridge on on Horseneck Road, 1.5 mi north of Pine Brook, and 8.7 mi above Pompton River.	350	1970 1983-84	1-17-84 9-18-84	351 *121
01388900 Packanack Brook	Pompton River	Lat 40°55'12", long 74°16'04", Passaic County, at bridge on Pompton Turnpike (State Route 23) at Mountain View, and 0.4 mi above mouth.	2.84	1963 1983-84	10-11-83 9-18-84	*0.16 *.39
01389140 Deepavaal Brook	Passiac River	Lat 40°53'14", long 74°16'00", Essex County, at bridge on Little Falls Road, 300 ft northwest of Pier Lane, 400 ft upstream from Passaic River, and 0.8 mi southeast of Two Bridges.	7.57	1970 1983-84	12-10-83 9-18-84	3.9 *2.5
01389400 Passaic River	Newark Bay	Lat 40°52'46", long 74°14'49", Passaic County, at bridge on Pompton Turnpike (Route 23) in Singac, 300 ft upstream from the Erie-Lackawanna railroad bridge, and 1.3 mi northwest of Little Falls.	-	1983-84	9-18-84	*283
01389630 Passaic River	Newark Bay	Lat 40°54'14", long 74°12'03", Passaic County, at bridge on Towowa Road in Towowa, 0.9 mi upstream from Molly Ann Brook, and 2.3 mi northeast of Little Falls.	-	1972 1983-84	9-19-84	*104
01389875 Passaic River	Newark Bay	Lat 40°55'05", long 47°07'52", Passaic County, at bridge on Broadway Street in East Paterson, 1.6 mi south of Fairlawn and 2.6 mi upstream from Dundee Dam.	-	1984	9-20-84	*167
01391200 Saddle River	Passaic River	Lat 40°56'30", long 74°05'36", Bergen County, at bridge on Century Road in Fair Lawn, and 0.8 mi downstream of Hohokus Brook.	45.2	1982-84	9-11-84	41
		Raritan River basin				
01396535 South Branch Raritan River	Raritan River	Lat 40°38'49", long 74°53'52", Hunterdon County, at bridge on Arch Street in High Bridge, 0.9 mi northeast of Mariannes Corner, and 4.3 mi northeast of Norton.	68.8	1983-84	6-11-84	74
01396588 Spruce Run	South Branch Raritan River	Lat 40°40'41", long 74°55'06", Hunterdon County, at site 800 ft downstream of Rocky Run, 0.3 mi upstream from Van Syckel Road bridge, 1.5 mi northwest of High Bridge, and 1.6 mi southeast of Glen Gardner.	15.5	1979-84	7-11-84	*7.0
01405435 Cedar Brook	Manalapan Brook	Lat 40°23'26", long 74°23'31", Middlesex County, 50 ft upstream from mouth at Spotswood, and 4.3 mi south of South River.	3.85	1957-83c, 1983-84	11-29-83 5-09-84	9.9 19

* Base flow.
a Discharge records published in reports of the New Jersey Department of Environmental Protection.
b Discharge records on file in U.S. Geological Survey Office, Trenton, New Jersey.
c Operated as continuous gaging station by Duhernal Water Company. Recorder charts on file in U.S. Geological Survey Office, Trenton New Jersey.

TIDAL CREST-STAGE STATIONS

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929 unless otherwise noted. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Period of record	Annual maximum Date	Annual maximum Elevation NGVD* (feet)
01406700	Raritan River at Perth Amboy, NJ	Lat 40°30'31", long 74°17'30", Middlesex County, on downstream left bank, 20 ft downstream of Victory Bridge on State Route 35 in Perth Amboy, 0.5 mi downstream from Garden State Parkway bridge, and 1.5 mi upstream from mouth of Raritan River.	1967-70‡, 1980-84	3-29-84	7.92
01407030	Luppatatong Creek at Keyport, NJ	Lat 40°26'08", long 74°12'27", Monmouth County, on left bank upstream side of Front Street bridge in Keyport, 0.1 mi upstream from mouth, and 2.0 mi northwest of Matawan.	1980-84	3-29-84	8.03
01408168	Barnegat Bay at Mantoloking, NJ	Lat 40°42'24", long 74°03'25", Ocean County, at east end of Herbert Street (Mantoloking Road) bridge in Mantoloking, and 2.0 mi south of Bay Head.	1979-84	12-23-83	3.45
01408200	Barnegat Bay at Bay Shore, NJ	Lat 39°56'56", long 74°06'52", Ocean County, at west end of State Route 37 bridge over Barnegat Bay at Bay Shore, 2.2 mi west of Seaside Heights, and 4.5 mi east of Toms River.	1965-84	3-29-84	3.26
01409000	Cedar Creek at Lanoka Harbor, NJ	Lat 39°52'05", long 74°10'06", Ocean County, at bridge on U.S. Route 9 in Lanoka Harbor, 0.6 mi south of Toms River, and 2.0 mi upstream from mouth.	1932-58‡, 1971‡, 1979-84	3-29-84	4.22
01409145	Manahawkin Bay near Manahawkin, NJ	Lat 39°40'13", long 74°12'54", Ocean County, at west end of State Route 72 bridge over Manahawkin Bay, 2.5 mi northwest of Ship Bottom, and 3.1 mi southeast of Manahawkin.	1965-84	3-29-84	5.36
01409285	Little Egg Harbor at Beach Haven, NJ	Lat 39°33'10", long 74°15'07", Ocean County, in Beach Haven at U.S. Coast Guard station, 6.0 mi southeast of Tuckerton and 7.4 mi southeast of Ship Bottom.	1979-84	3-29-84	6.19
01409510	Batsto River at Pleasant Mills, NJ	Lat 39°37'55", long 74°38'40", Ocean County, on right bank, 0.5 mi upstream from mouth, and 1.0 mi southeast of Pleasant Mills.	1958-84‡	3-29-84	6.83
01410100	Mullica River near Port Republic, NJ	Lat 39°33'12", long 74°27'46", Atlantic County, on right bank on bulkhead piling at south end of U.S. Route 9 and Garden State Parkway bridge over Mullica River, 2.8 mi northeast of Port Republic, and 2.8 mi south of New Gretna.	1965-84	3-29-84	6.84

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Period of record	Annual maximum	
				Date	Elevation NGVD* (feet)
01410500	Absecon Creek at Absecon, NJ	Lat 39°25'45", long 74°31'16", Atlantic County, on right bank 30 ft downstream from Doughty Pond Dam of Atlantic City Water Department, 1 mi west of Absecon, and 3.4 mi upstream from mouth.	1923-29‡, 1933-38‡, 1946-84‡	3-29-84	7.77
01410570	Beach Thorofare at Atlantic City, NJ	Lat 39°21'56", long 74°26'44", Atlantic County, on west abutment south side of Pennsylvania-Reading Seashore Lines railroad swivel bridge in Atlantic City, 0.5 mi northeast of Bader Field airport, and 2.7 mi northeast of Ventnor City.	1978‡, 1979-84	3-29-84	6.76
01411300	Tuckahoe River at Head of River, NJ	Lat 39°18'25", long 74°49'15", Cape May County, on right bank at highway bridge on State Route 49, 0.2 mi upstream from McNeals Branch, 0.4 mi southeast of Head of River, and 3.7 mi west of Tuckahoe.	1979-84‡	3-29-84	7.00
01411318	Crook Horn Creek at Ocean City, NJ	Lat 39°15'09", long 74°37'44", Cape May County, at dock on property of county maintenance yard, 100 ft south of Roosevelt Boulevard, 1.3 mi southeast of Marmora, and 3.3 mi southwest of city hall in Ocean City.	1979-84	3-29-84	5.59
01411320	Great Egg Harbor Bay at Ocean City, NJ	Lat 39°17'03", long 74°34'41", Cape May County, on bulkhead at west end of 7th Street (prior to October 1974, gage was located at Fifth Street), Ocean City, and 2.5 mi southeast of Somers Point.	1965-84	3-29-84	7.53
01411350	Ludlam Thorofare at Sea Isle City, NJ	Lat 39°09'24", long 74°42'00", Cape May County, on bulkhead at west end of 44th Street in Sea Isle City.	1978‡, 1979-84	3-29-84	7.61
01411360	Great Channel at Stone Harbor, NJ	Lat 39°03'26", long 74°45'53", Cape May County, on bulkhead piling at east end of bridge at west end of Borough of Stone Harbor, 3.7 mi southeast of Cape May Court House, and 3.9 mi southwest of Avalon.	1965-84	3-29-84	7.33
01411390	Cape May Harbor at Cape May, NJ	Lat 38°56'54", long 74°53'26", Cape May County, on grounds of U.S. Coast Guard Receiving Center in Cape May, and 0.7 mi southeast of east end of Cape May Canal.	1965-84	3-29-84	6.26

* National Geodetic Vertical Datum of 1929 (NGVD).

‡ Operated as a continuous record gaging station.

ATLANTIC COUNTY

391821074320701. Local I.D., Longport Obs. NJ-WRD Well Number, 01-0366.
LOCATION.--Lat 39°18'21", long 74°32'08", Hydrologic Unit 02040302, 130 ft southwest of intersection of 14th and Atlantic Avenues, Longport.
Owner: Longport Water Department.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 803 ft, screened 753 to 803 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, August 1924 to September 1975.
DATUM.--Land-surface datum is 6.35 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.16 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation. Land-surface datum prior to January 1975, 1.35 ft lower. The highest water level measured in this well was 14.00 ft above land-surface datum when drilled in 1895.
PERIOD OF RECORD.--August 1924 to September 1975, May 1977 to September 1984 (discontinued). Records for 1977 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.95 ft below land-surface datum, Jan. 28, 1925; lowest, 106.35 ft below land-surface datum, Aug. 22, 1972.
EXTREMES FOR CURRENT YEAR.--Highest water level, 55.91 ft below land-surface datum, between Feb. 16 and May 1; lowest, 74.87 ft below land-surface datum, between June 6 and Sept. 5.

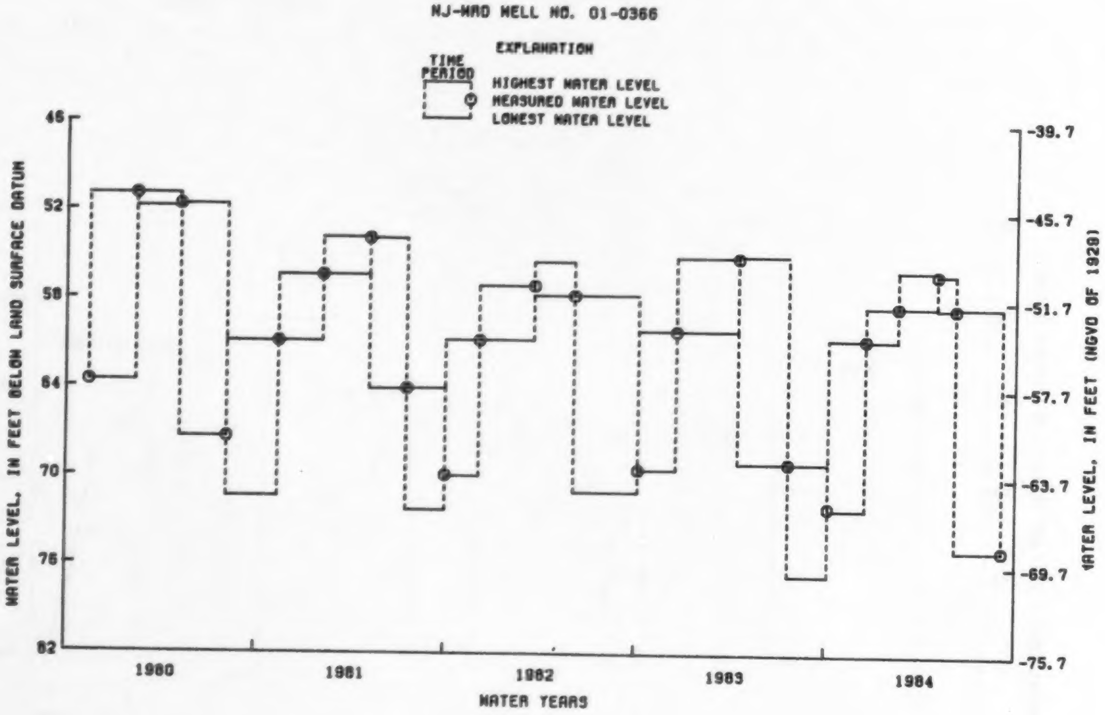
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 5, 1983 TO DEC. 16, 1983	60.58	72.14
DEC. 16, 1983 TO FEB. 16, 1984	58.36	60.65
FEB. 16, 1984 TO MAY 1, 1984	55.91	58.36
MAY 1, 1984 TO JUNE 6, 1984	56.12	58.46
JUNE 6, 1984 TO SEPT. 5, 1984	58.35	74.87

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 16, 1983	60.58
FEB. 16, 1984	58.36
MAY 1, 1984	56.16
JUNE 6, 1984	58.46
SEPT. 5, 1984	74.85



ATLANTIC COUNTY

391827074371001. Local I.D., Jobs Point Obs. NJ-WRD Well Number, 01-0578.
LOCATION.--Lat 39°18'26", long 74°37'09", Hydrologic Unit 02040302, on the west side of the Garden State Parkway at interchange 29, Somers Point.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 680 ft, screened 670 to 680 ft.
INSTRUMENTATION.--Water-level recorder, October 1959 to June 1975 and February 1984 to September 1984. Water-level extremes recorder, May 1977 to February 1984.
DATUM.--Land-surface datum is 10.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 9.62 ft above land-surface datum, October 1, 1983 to February 15, 1984. Top edge of recorder shelf, 9.34 ft above land-surface datum, February 16, 1984 to September 30, 1984.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--October 1959 to June 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.10 ft below land-surface datum, Apr. 13, 1961; lowest, 74.58 ft below land-surface datum, between July 20 and Sept. 29, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 52.05 ft below land-surface datum, Mar. 29; lowest, 74.48 ft below land-surface datum, Sept. 5.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

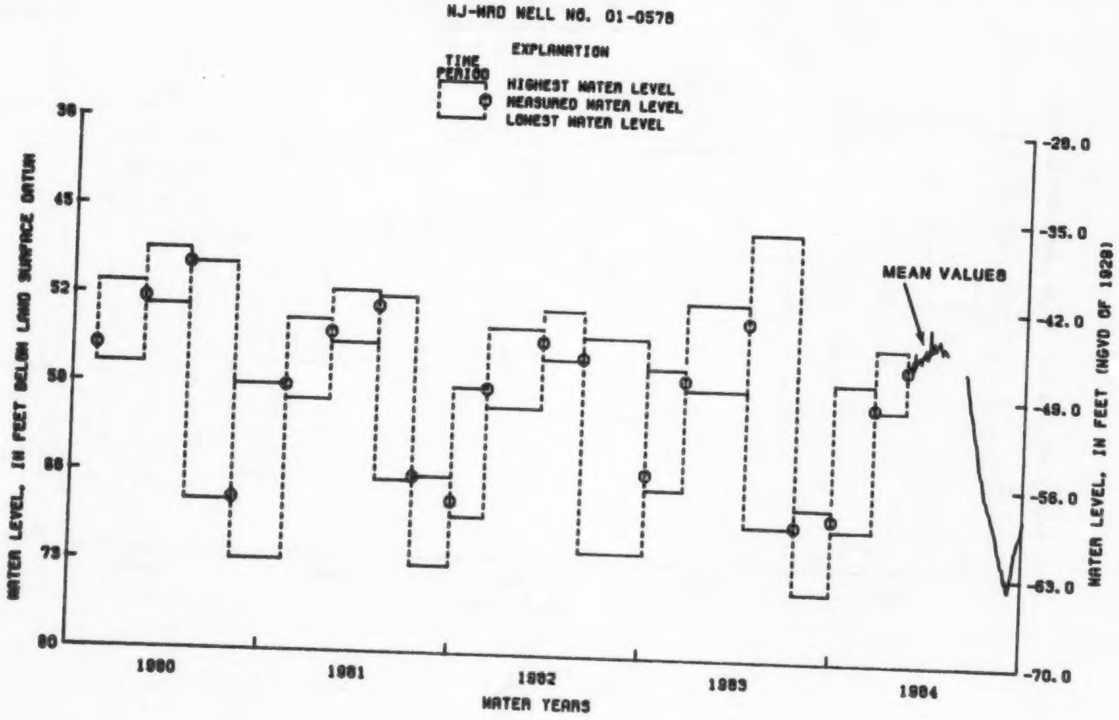
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO DEC. 16, 1983	57.99	69.56
DEC. 16, 1983 TO FEB. 15, 1984	55.12	60.03

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 16, 1983	59.82
FEB. 15, 1984	56.74

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5					---	55.67	54.29	---	---	63.90	68.87	73.84
10					---	55.62	54.67	---	57.28	64.92	69.64	72.58
15					---	55.51	54.17	---	58.76	65.94	70.84	70.73
20					56.32	55.20	54.83	---	60.06	66.78	71.64	69.89
25					56.01	55.29	54.95	---	61.34	67.49	71.95	69.38
EOM					55.96	54.72	55.04	---	62.21	68.18	72.80	68.25
MEAN					---	55.34	54.73	---	59.62	65.85	70.78	71.15



ATLANTIC COUNTY

392153074250101. Local I.D., Galen Hall Obs. NJ-WRD Well Number, 01-0037.

LOCATION.--Lat 39°21'51", long 74°24'59", Hydrologic Unit 02040302, near the intersection of Pacific and Congress Avenues, Atlantic City.

Owner: Atlantic City Municipal Utilities Authority.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 837 ft, screened 782 to 837 ft.

INSTRUMENTATION.--Water-level recorder. May 1977 to July 1980, water-level extremes recorder.

DATUM.--Land-surface datum is 9.54 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 0.90 ft above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation and nearby pumping.

PERIOD OF RECORD.--January 1949 to August 1975, May 1977 to current year. Records for 1949 to 1975 are unpublished and are available in files of New Jersey District Office.

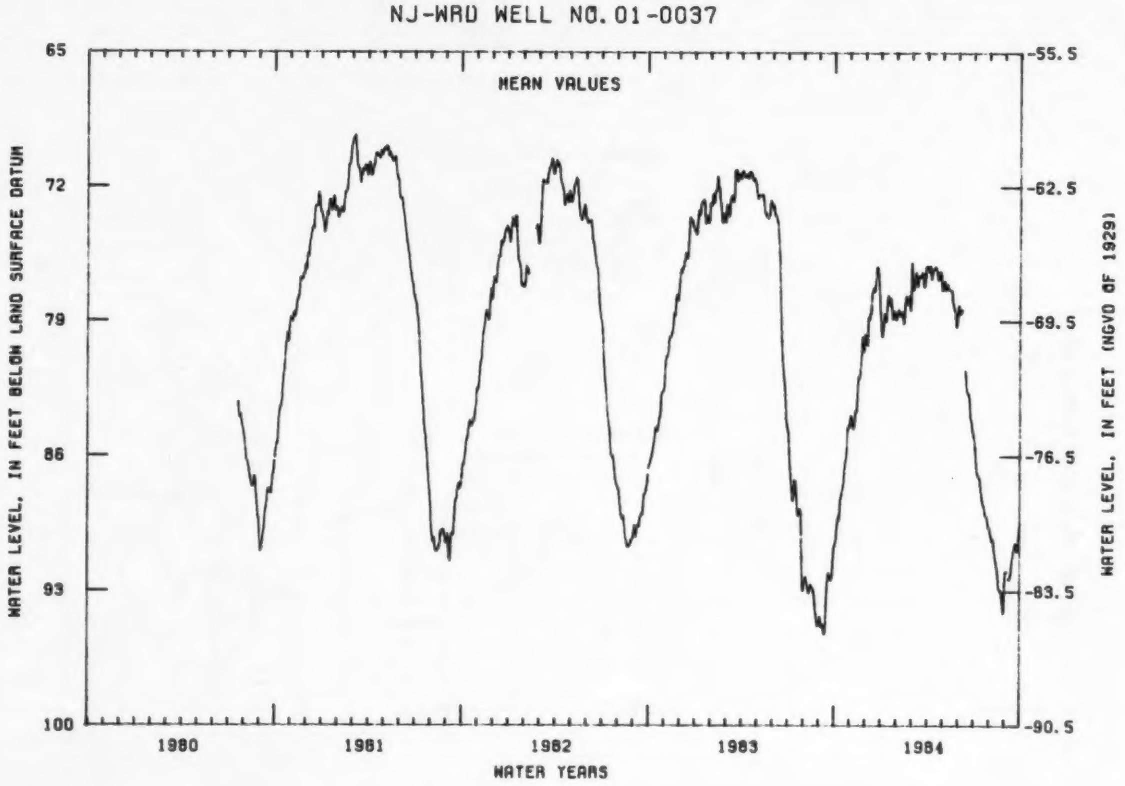
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.58 ft below land-surface datum, Mar. 7, 1962; lowest, 96.96 ft below land-surface datum, Sept. 23, 1970.

EXTREMES FOR CURRENT YEAR.--Highest water level, 75.82 ft below land-surface datum, Mar. 1; lowest, 94.36 ft below land-surface datum, Aug. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	90.01	84.40	79.83	79.20	78.53	77.38	76.21	76.89	78.59	86.02	90.31	---
10	89.33	83.97	78.60	79.00	78.45	76.42	76.62	77.06	---	87.05	90.78	92.39
15	87.94	82.81	77.33	77.89	78.51	76.69	76.22	77.35	81.60	87.69	91.56	91.43
20	86.92	81.78	77.08	77.95	78.01	76.58	76.44	77.67	82.74	88.58	92.90	90.64
25	85.58	79.79	76.30	78.42	77.66	77.22	76.40	78.41	83.97	89.12	93.01	90.92
EOM	84.25	79.65	78.91	78.70	76.32	76.11	77.39	78.75	84.71	89.68	92.77	89.52
MEAN	87.60	82.43	77.99	78.62	78.25	76.70	76.44	77.74	81.65	87.73	91.82	91.26

WTR YR 1984 MEAN 82.31 HIGH 75.93 MAR 1 LOW 94.16 AUG 29



ATLANTIC COUNTY

392436074303501. Local I.D., Atlantic City W.D. 600 Obs. NJ-WRD Well Number, 01-0566.

LOCATION.--Lat 39°24'34", long 74°30'32", Hydrologic Unit 02040302, at the pumping station on Route 585 between Absecon and Pleasantville.

Owner: Atlantic City Municipal Utilities Authority.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 565 ft, length of screen unknown.

INSTRUMENTATION.--Water-level recorder, March 1925 to August 1975 and February 1984 to September 1984. Water-level extremes recorder, May 1977 to February 1984.

DATUM.--Land-surface datum is 11.68 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.08 ft above land-surface datum, October 1, 1983 to February 13, 1984. Top edge of recorder shelf, 3.0 ft above land-surface datum, February 14, 1984 to September 30, 1984.

REMARKS.--Water level affected by tidal fluctuation and nearby pumping.

PERIOD OF RECORD.--March 1925 to August 1975, May 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.83 ft below land-surface datum, May 28, 1925; lowest, 61.88 ft below land-surface datum, Oct. 10, 1970.

EXTREMES FOR CURRENT YEAR.--Highest water level, 53.35 ft below land-surface datum, Apr. 16; lowest, 58.05 ft below land-surface datum, Sept. 22.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 5, 1983 TO DEC. 16, 1983	54.04	57.77
DEC. 16, 1983 TO FEB. 14, 1984	54.51	55.30

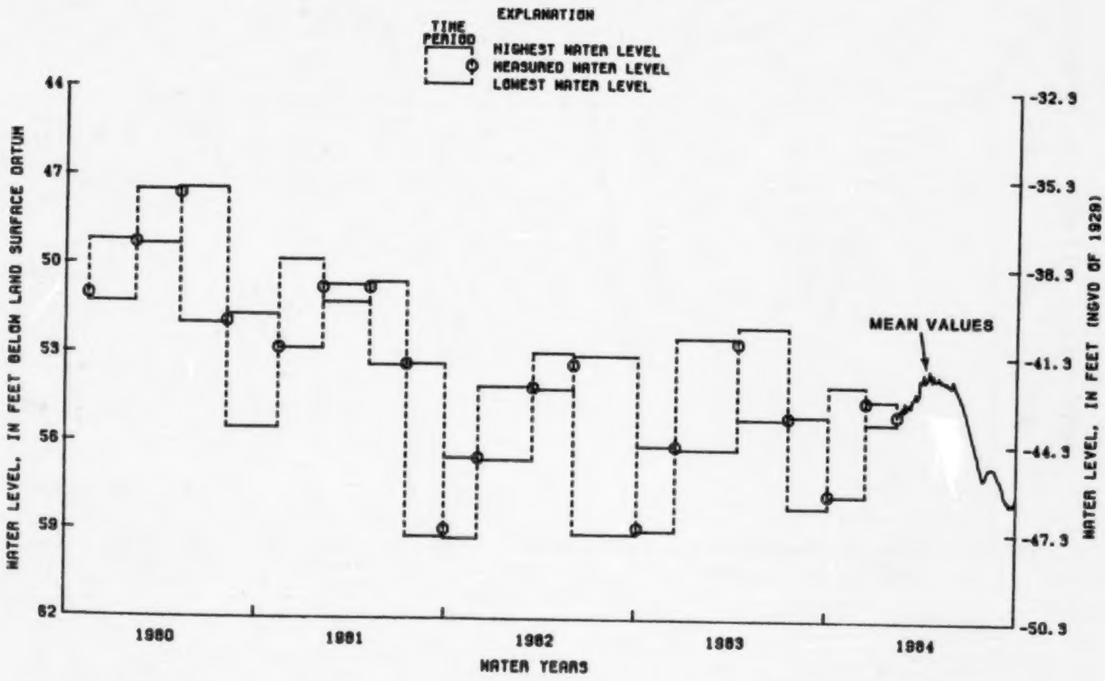
MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 16, 1983	54.56
FEB. 14, 1984	55.01

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5					---	54.70	53.55	53.73	54.01	55.57	56.85	57.47
10					---	54.63	53.77	53.79	54.19	55.90	56.76	57.75
15					54.84	54.47	53.57	53.82	54.40	56.27	56.73	57.84
20					54.76	54.30	53.68	53.82	54.60	56.62	56.77	57.90
25					54.68	54.33	53.64	53.95	54.85	56.92	57.01	57.91
EOM					54.52	53.73	53.73	53.77	55.22	57.09	57.18	57.75
MEAN					---	54.41	53.68	53.83	54.45	56.29	56.88	57.77

NJ-WRD WELL NO. 01-0566



ATLANTIC COUNTY

392754074270101. Local I.D., Oceanville 1 Obs. NJ-WRD Well Number, 01-0180.

LOCATION.--Lat 39°27'54", long 74°27'01", Hydrologic Unit 02040302, at Edwin B. Forsythe National Wildlife Refuge, Brigantine Division, Oceanville.

Owner: U.S. Geological Survey.

AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 570 ft, screened 560 to 570 ft.

INSTRUMENTATION.--Water-level recorder, October 1959 to August 1975 and February 1984 to August 1984. Water-level extremes recorder, April 1977 to February 1984.

DATUM.--Land-surface datum is 27.17 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.50 ft above land-surface datum, October 1, 1983 to February 14, 1984. Top of coupling, 2.30 ft above land-surface datum, February 15, 1984 to August 15, 1984.

REMARKS.--Water level affected by tidal fluctuation. Land-surface datum prior to January 1975, 0.08 ft higher.

PERIOD OF RECORD.--October 1959 to August 1975, April 1977 to current year. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.62 ft below land-surface datum, Apr. 13, 1961; lowest, 63.00 ft below land-surface datum, between May 5 and Sept. 29, 1981.

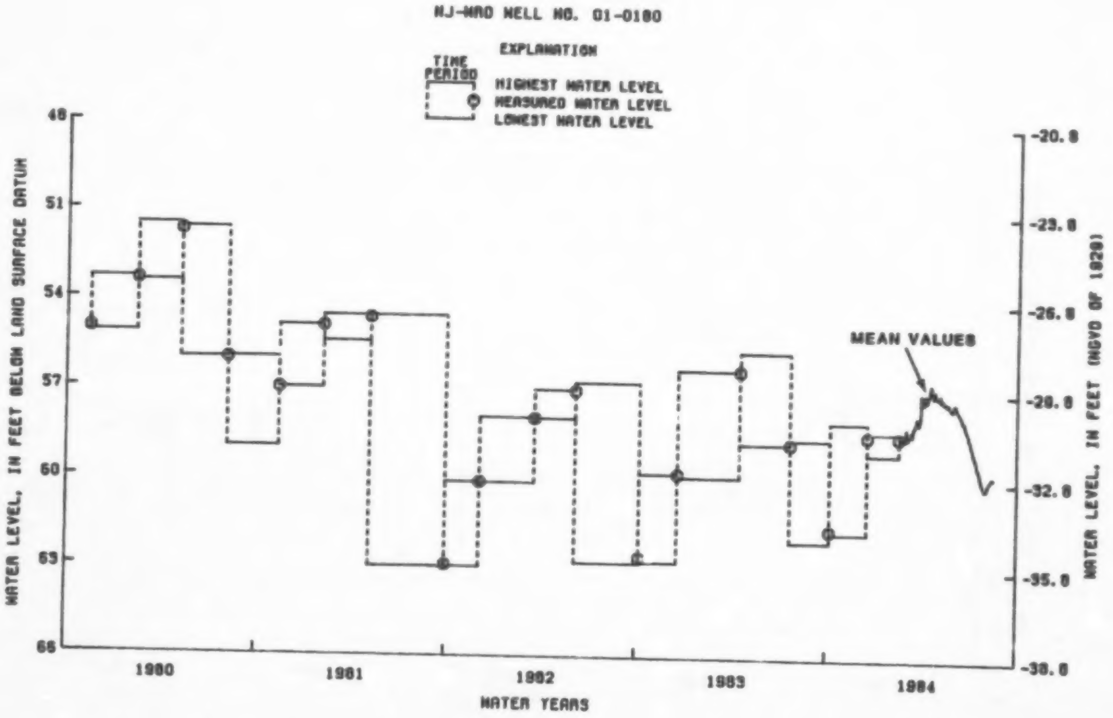
EXTREMES FOR CURRENT YEAR.--Highest water level, 56.41 ft below land-surface datum, Apr. 16; lowest, 61.75 ft below land-surface datum, between Oct. 5 and Dec. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1983 TO DEC. 16, 1983	58.01	61.75	DEC. 16, 1983	58.46
DEC. 16, 1983 TO FEB. 15, 1984	58.33	59.08	FEB. 15, 1984	58.47

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5					---	58.42	56.97	57.11	57.49	58.79	59.95	
10					---	58.28	57.14	57.22	57.63	59.12	59.84	
15					58.61	58.12	56.78	57.29	57.82	59.47	59.79	
20					58.44	57.90	56.93	57.29	57.98	59.75	---	
25					58.35	57.97	56.93	57.48	58.19	60.03	---	
EOM					58.19	57.24	57.07	57.29	58.49	60.17	---	
MEAN					---	58.03	57.02	57.29	57.85	59.45	---	



ATLANTIC COUNTY

393333074442401. Local I.D., Scholler 1 Obs. NJ-WRD Well Number, 01-0256.

LOCATION.--Lat 39°33'33", long 74°44'26", Hydrologic Unit 02040302, at Scholler Brothers plant, near intersection of Weymouth and Second Roads, Elwood.

Owner: Scholler Brothers Incorporated.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 275 ft, screened 254 to 275 ft.

INSTRUMENTATION.--Water-level recorder, April 1962 to August 1975 and May 1984 to September 1984. Water-level extremes recorder, May 1977 to April 1984.

DATUM.--Land-surface datum is 93.19 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.95 ft above land-surface datum, October 1, 1983 to April 30, 1984. Top edge of recorder shelf, 2.66 ft above land-surface datum, May 1, 1984 to September 30, 1984.

PERIOD OF RECORD.--April 1962 to August 1975, May 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.18 ft below land-surface datum, Mar. 20, 1963; lowest, 39.56 ft below land-surface datum, Sept. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 34.36 ft below land-surface datum, June 4; lowest, 37.38 ft below land-surface datum, between Sept. 29, 1983 and Jan. 10, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 10, 1984	35.88	37.38
JAN. 10, 1984 TO FEB. 16, 1984	35.79	36.04
FEB. 16, 1984 TO MAY 1, 1984	34.49	35.92

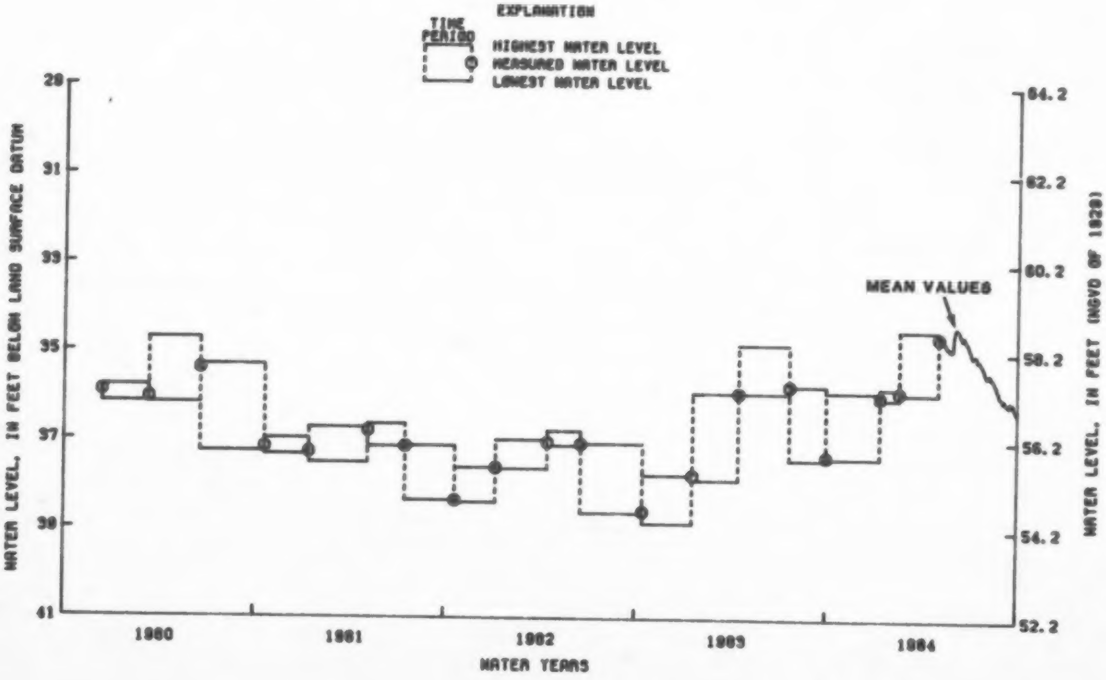
MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 10, 1984	35.99
FEB. 16, 1984	35.87
MAY 1, 1984	34.63

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5								34.65	34.41	35.03	35.44	36.03
10								34.71	34.49	35.03	35.52	36.09
15								34.77	34.63	35.14	35.59	36.04
20								34.83	34.62	35.18	35.71	36.07
25								34.92	34.71	35.27	35.89	36.22
EOM								34.54	34.88	35.45	35.98	36.25
MEAN								34.77	34.60	35.14	35.67	36.13

NJ-WRD WELL NO. 01-0256



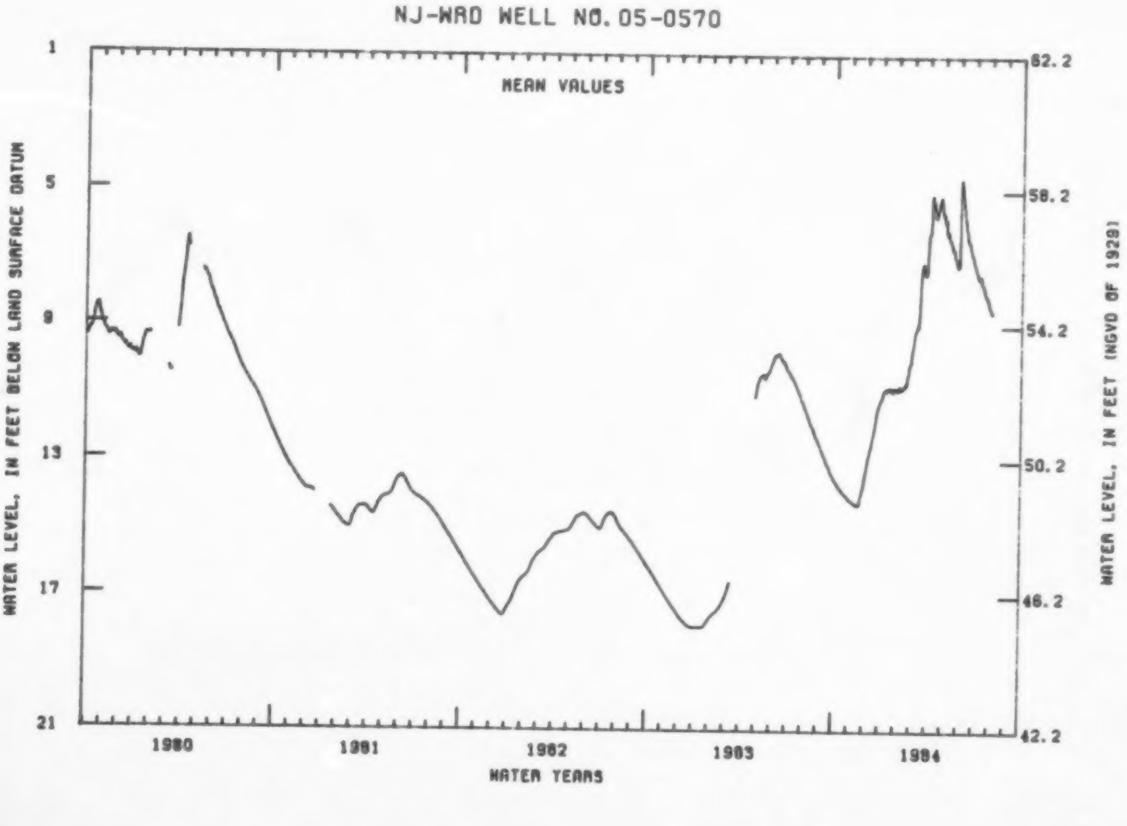
BURLINGTON COUNTY

394106074362501. Local I.D., Mount at Mount Obs. NJ-WRD Well Number, 05-0570.
LOCATION.--Lat 39°41'06", long 74°36'23", Hydrologic Unit 02040301, at Mount in Wharton State Forest.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 25 ft, open-end cement casing.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 63.24 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of cement casing, 0.60 ft above land-surface datum.
REMARKS.--Water-quality records for 1984 are published elsewhere in this report.
PERIOD OF RECORD--September 1955 to July 1970, October 1977 to current year. Periodic manual measurements, October 1970 to September 1977. Records for September 1955 to September 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.92 ft below land-surface datum, Aug. 26, 1958; lowest, 18.51 ft below land-surface datum, Oct. 2, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 4.52 ft below land-surface datum, June 2; lowest, 14.32 ft below land-surface datum, Nov. 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.63	14.18	12.99	10.93	10.76	9.30	5.77	6.19	5.12	7.44		
10	13.76	14.23	12.64	10.83	10.85	9.03	5.28	6.41	5.78	7.52		
15	13.86	14.29	12.28	10.83	10.72	8.45	5.77	6.61	6.39	7.76		
20	13.96	14.16	11.81	10.89	10.49	7.22	5.30	6.82	6.65	8.02		
25	14.03	13.82	11.40	10.81	10.10	7.35	5.32	7.09	6.90	8.21		
EOM	14.14	13.41	11.16	10.83	9.80	6.44	5.64	5.67	7.20	8.49		
MEAN	13.86	14.08	12.16	10.89	10.57	8.18	5.57	6.57	6.15	7.84		

WTR YR 1984 MEAN 9.58 HIGH 4.61 JUN 2 LOW 14.30 NOV 14 AND OTHERS



BURLINGTON COUNTY

394452074281901. Local I.D., Penn State Forest Shallow Obs. NJ-WRD Well Number, 05-0628.

LOCATION.--Lat 39°44'52", long 74°28'19", Hydrologic Unit 02040301, on the west side of Cabin Road, about 500 ft south of intersection with Sooy Road in Penn State Forest, Washington Township.
Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 12 ft, open-end steel casing.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 78.78 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.70 ft above land-surface datum.

REMARKS.--Well deepened from 10 to 12 ft in July 1963. Measuring point prior to July 1963, top of coupling, 0.11 ft above land-surface datum. Water-quality records for 1984 are published elsewhere in this report.

PERIOD OF RECORD.--December 1936 to January 1975, October 1977 to September 1984 (discontinued). Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.

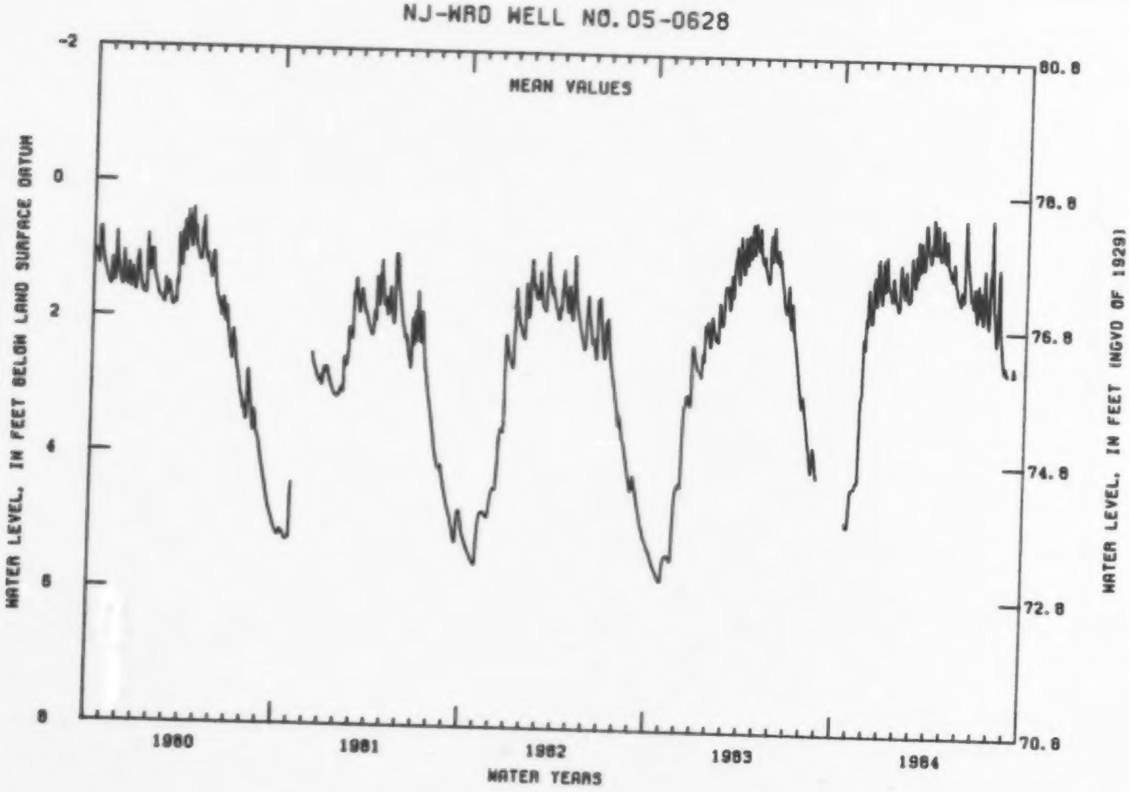
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.11 ft above land-surface datum (flowing), several times, 1959-1962; lowest, 5.92 ft below land-surface datum, Dec. 11, 1965.

EXTREMES FOR CURRENT YEAR.--Highest water level, 0.25 ft below land-surface datum, July 22; lowest, 4.94 ft below land-surface datum, Oct. 21-22.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.28	1.27	1.40	1.10	1.08	.41	1.15	1.00	1.82	1.26	2.50
10	---	4.24	1.56	1.56	1.56	1.07	.84	1.07	1.36	1.41	2.00	---
15	---	2.94	1.10	1.43	1.16	.43	.76	1.38	1.46	1.82	2.45	---
20	4.92	2.28	1.54	1.60	1.17	.82	.84	1.52	1.47	1.41	2.49	---
25	4.73	1.53	1.21	1.07	.92	.94	.76	1.43	1.44	1.27	2.63	---
EOM	4.35	1.75	1.19	1.30	.65	.58	1.06	.34	1.75	1.98	---	---
MEAN	---	2.89	1.35	1.41	1.23	.81	.79	1.29	1.36	1.50	2.18	---

WTR YR 1984 MEAN 1.62 HIGH .32 MAR 29 AND OTHERS LOW 4.93 OCT 21 AND OTHERS



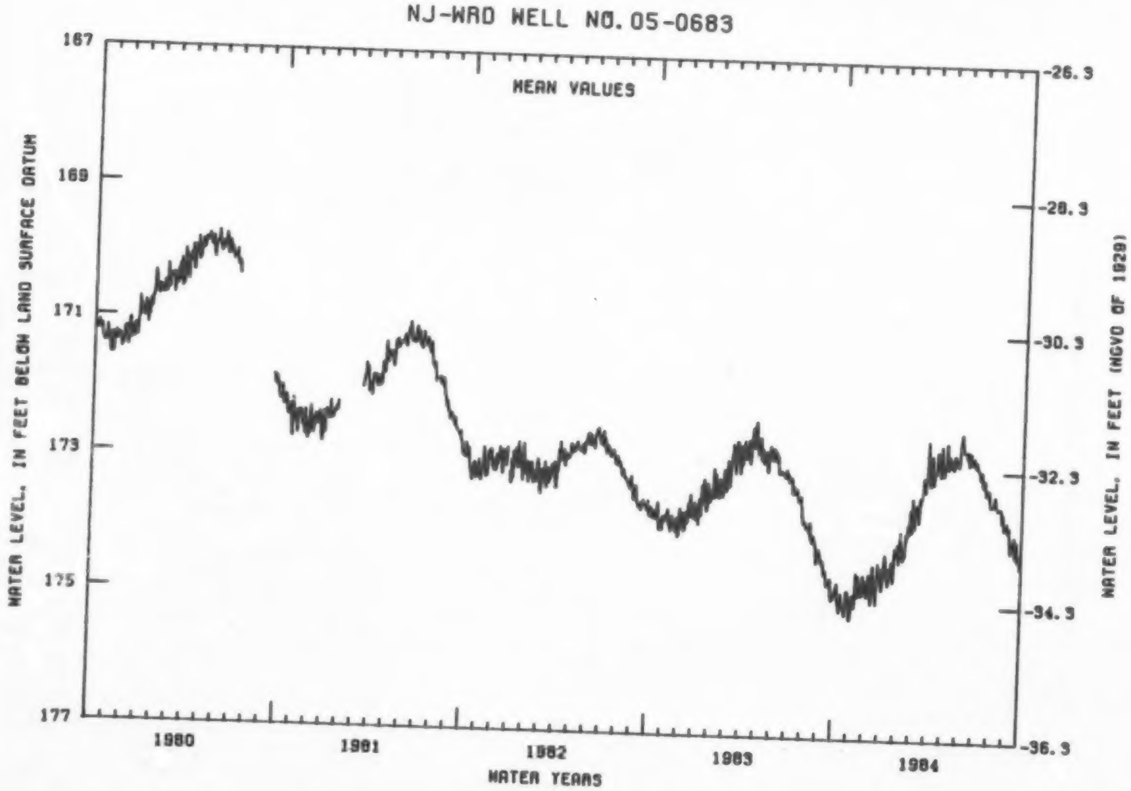
BURLINGTON COUNTY

395122074301701. Local I.D., Butler Place 1 Obs. NJ-WRD Well Number, 05-0683.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 2,117 ft, screened 2,102 to 2,117 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 140.66 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 2.80 ft above land-surface datum.
PERIOD OF RECORD.--October 1964 to August 1975, March 1977 to current year. Records for 1964 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 143.20 ft below land-surface datum, Feb. 25, 1965; lowest, 175.28 ft below land-surface datum, Oct. 30, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 172.40 ft below land-surface datum, June 2; lowest, 175.28 ft below land-surface datum, Oct. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	174.69	174.86	174.75	174.36	173.91	173.69	172.77	172.81	172.70	172.94	173.44	173.94
10	175.10	174.81	174.90	174.46	174.33	173.66	173.09	172.88	172.71	173.07	173.51	174.03
15	174.98	174.85	174.55	174.56	173.94	173.50	172.90	172.89	172.81	173.21	173.54	173.94
20	175.13	174.82	174.92	174.52	173.80	173.28	172.97	172.76	172.80	173.34	173.59	174.01
25	174.89	174.56	174.50	174.15	173.59	173.19	172.74	172.86	172.78	173.33	173.80	174.20
EOM	175.21	174.79	174.78	174.09	173.44	173.06	172.92	172.55	172.87	173.50	173.73	174.30
MEAN	174.96	174.83	174.70	174.44	173.99	173.39	172.97	172.84	172.76	173.18	173.59	174.11

WTR YR 1984 MEAN 173.81 HIGH 172.44 JUN 2 LOW 175.23 OCT 30



BURLINGTON COUNTY

395122074301702. Local I.D., Butler Place 2 Obs. NJ-WRD Well Number, 05-0684.

LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township. Owner: U.S. Geological Survey.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in, depth 170 ft, screened 160 to 170 ft.

INSTRUMENTATION.--Water-level extremes recorder, March 1977 to current year. Water-level recorder, May 1965 to April 1975.

DATUM.--Land-surface datum is 140.82 ft above National Geodetic Vertical Datum of 1929. Measuring point: Front edge of cutout in recorder housing, 2.67 ft above land-surface datum.

REMARKS.--Water-quality records for 1984 are published elsewhere in this report.

PERIOD OF RECORD.--May 1965 to April 1975, March 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.14 ft below land-surface datum, Feb. 15, 1973; lowest, 23.06 ft below land-surface datum, Feb. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 16.00 ft below land-surface datum, between May 23 and June 19; lowest, 20.64 ft below land-surface datum, between September 30, 1983 and January 30, 1984.

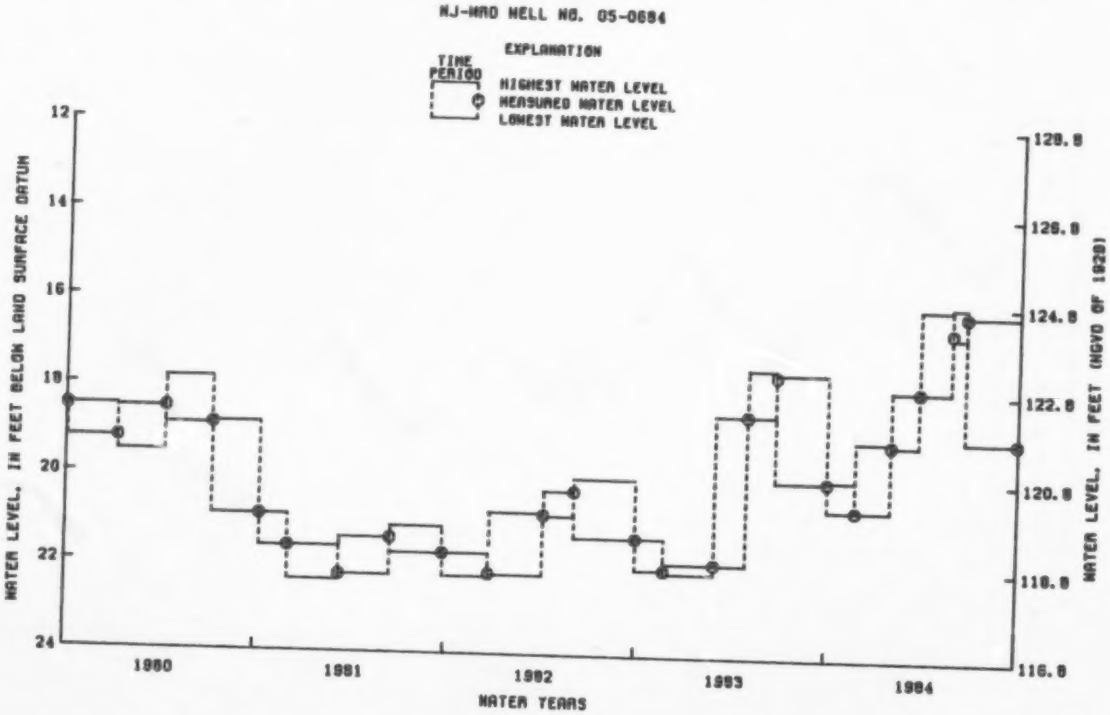
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO NOV. 23, 1983	19.97	20.64
NOV. 23, 1983 TO JAN. 30, 1984	19.07	20.64
JAN. 30, 1984 TO MAR. 23, 1984	17.92	19.15
MAR. 23, 1984 TO MAY 23, 1984	16.06	17.93
MAY 23, 1984 TO JUNE 19, 1984	16.00	16.69
JUNE 19, 1984 TO SEPT. 28, 1984	16.18	19.03

MEASURED WATER LEVEL

DATE	WATER LEVEL
NOV. 23, 1983	20.64
JAN. 30, 1984	19.13
MAR. 23, 1984	17.93
MAY 23, 1984	16.58
JUNE 19, 1984	16.20
SEPT. 28, 1984	19.03



CAMDEN COUNTY

394215074561701. Local I.D., New Brooklyn 1 Obs. NJ-WRD Well Number, 07-0476.

LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 1,505 ft, screened 1,485 to 1,495 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, February 1963 to August 1975.

DATUM.--Land-surface datum is 111.13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.30 ft above land-surface datum.

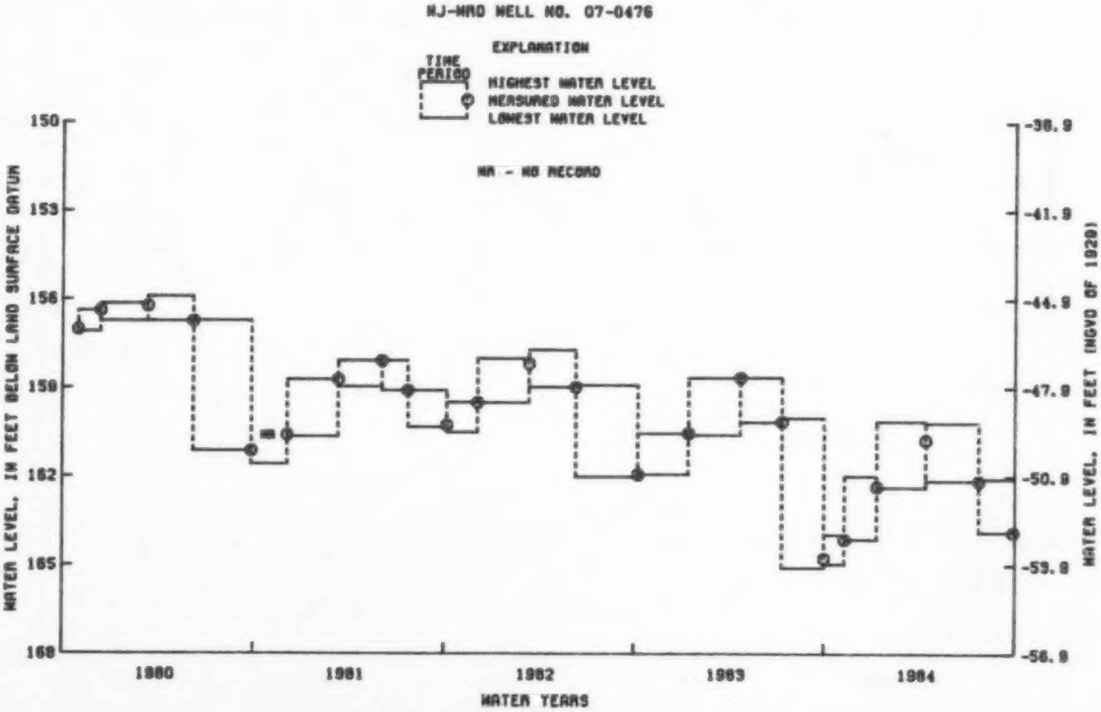
PERIOD OF RECORD.--February 1963 to August 1975, February 1977 to current year. Records for 1963 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft below land-surface datum, March 6, 1963; lowest, 165.10 ft below land-surface datum, between July 11 and Sept. 30, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 160.14 ft below land-surface datum, between Jan. 9 and Apr. 12; lowest, 164.98 ft below land-surface datum, between Sept. 30 and Nov. 8, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO NOV. 8, 1983	163.97	164.98	NOV. 8, 1983	164.14
NOV. 8, 1983 TO JAN. 9, 1984	161.99	164.14	JAN. 9, 1984	162.35
JAN. 9, 1984 TO APR. 12, 1984	160.14	162.38	APR. 12, 1984	160.77
APR. 12, 1984 TO JULY 23, 1984	160.19	162.16	JULY 23, 1984	162.16
JULY 23, 1984 TO SEPT. 27, 1984	162.08	163.89	SEPT. 27, 1984	163.89



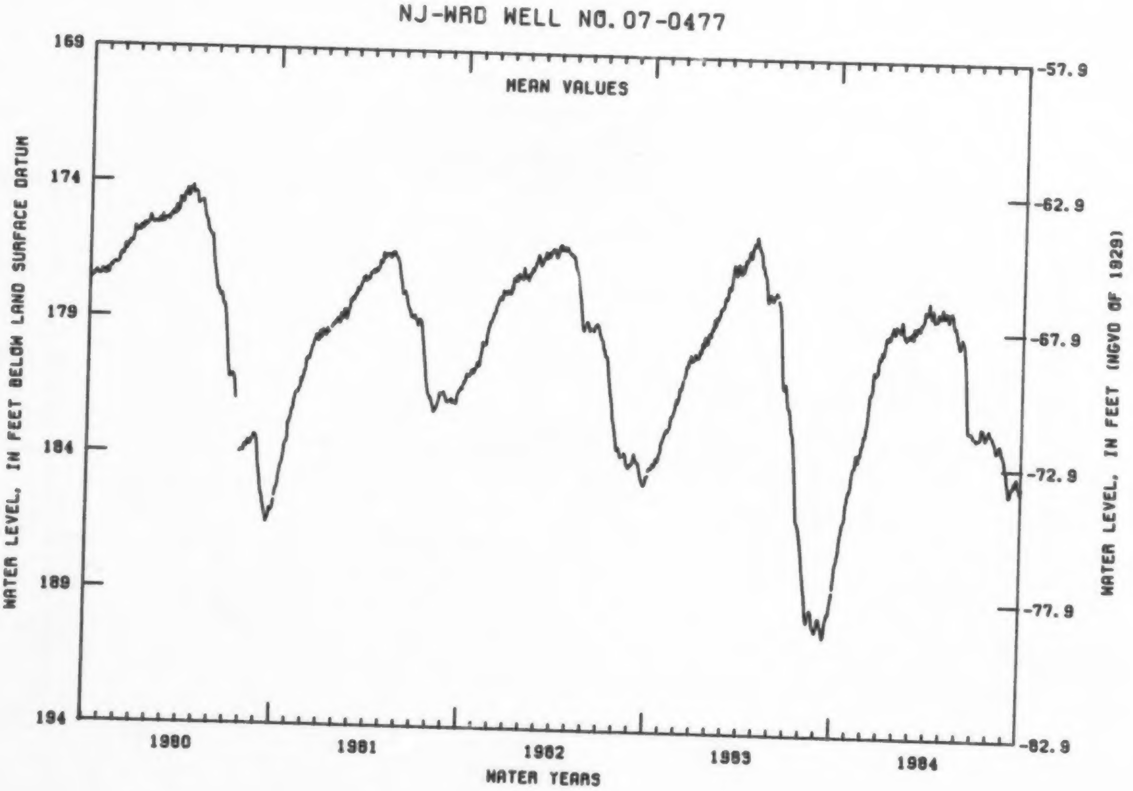
CAMDEN COUNTY

394215074561702. Local I.D., New Brooklyn Park 2 Obs. NJ-WRD Well Number, 07-0477.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 849 ft, screened 829 to 839 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 111.13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.30 ft above land-surface datum.
PERIOD OF RECORD.--January 1963 to August 1975, March 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.54 ft below land-surface datum, Mar. 6, 1963; lowest, 190.37 ft below land-surface datum, Sept. 14, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 177.78 ft below land-surface datum, Mar. 29; lowest, 188.58 ft below land-surface datum, Oct. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	187.65	184.13	181.68	179.31	178.58	178.91	178.12	178.47	179.36	182.87	182.95	184.95
10	187.25	183.80	181.22	179.19	179.21	178.89	178.50	178.27	180.22	182.77	183.34	184.64
15	186.47	183.82	180.49	179.06	179.10	178.75	178.46	178.49	182.24	182.50	183.17	184.41
20	186.06	183.42	180.50	178.95	179.06	178.51	178.42	178.76	182.67	182.91	183.29	184.27
25	185.32	182.84	179.96	178.76	178.99	178.26	178.17	179.28	182.75	182.59	183.58	184.63
EOM	184.84	182.53	179.87	178.84	178.81	178.26	178.25	179.33	182.84	182.74	184.11	184.65
MEAN	186.45	183.59	180.74	179.11	179.04	178.59	178.37	178.74	181.44	182.73	183.32	184.63

WTR YR 1984 MEAN 181.40 HIGH 177.88 MAR 29 LOW 188.49 OCT 1



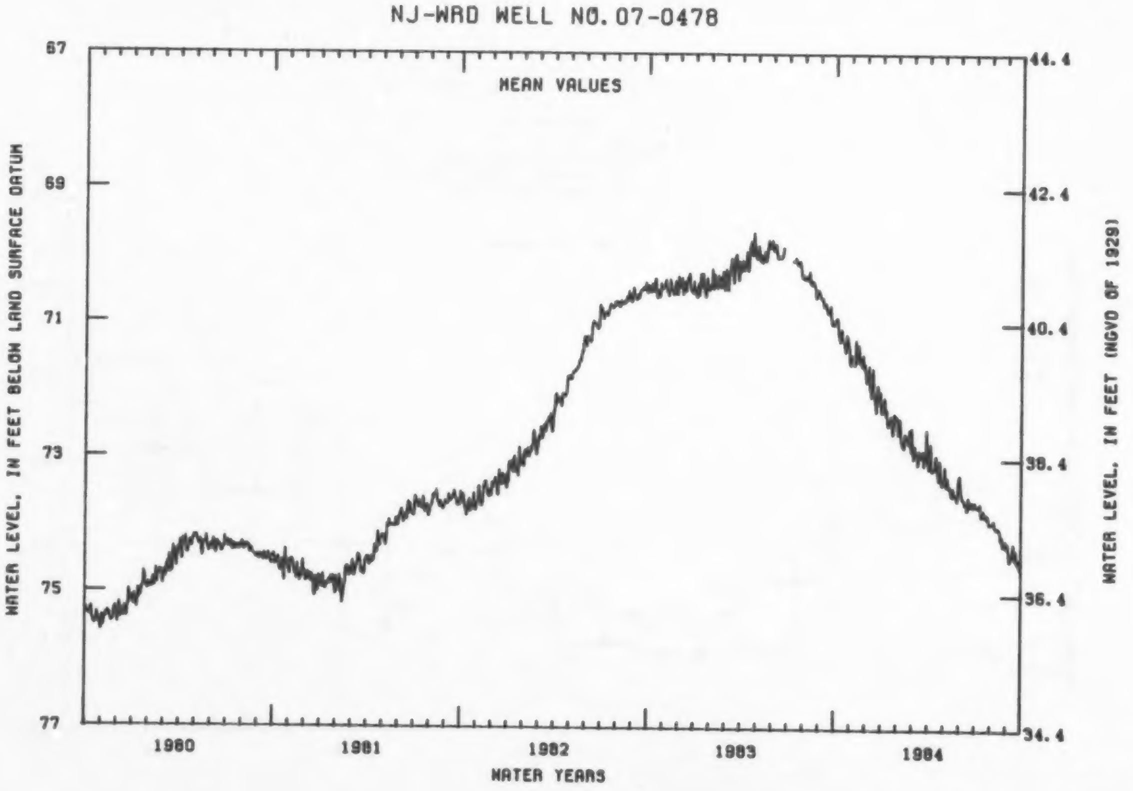
CAMDEN COUNTY

394215074561703. Local I.D., New Brooklyn Park 3 Obs. NJ-WRD Well Number, 07-0478.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 540 ft, screened 520 to 530 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 111.45 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--December 1962 to August 1975, March 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.53 ft below land-surface datum, Dec. 18, 1962; lowest, 76.49 ft below land-surface datum, May 17-18, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 70.88 ft below land-surface datum, Oct. 5; lowest, 74.61 ft below land-surface datum, Sept. 27-28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.90	---	71.72	72.13	72.39	72.94	72.82	73.23	73.50	73.67	73.92	74.29
10	71.22	71.47	71.99	72.32	72.80	72.99	73.15	73.34	73.59	73.69	73.99	74.40
15	71.17	71.55	71.75	72.43	72.61	72.93	73.10	73.44	73.65	73.84	73.99	74.23
20	71.34	71.58	72.19	72.47	72.64	72.96	73.19	73.41	73.59	73.84	74.06	74.33
25	71.21	71.45	71.95	72.32	72.57	73.05	73.07	73.54	73.62	73.82	74.21	74.47
EOM	71.58	71.71	72.30	72.37	72.53	72.90	73.30	73.28	73.69	73.94	74.18	74.51
MEAN	71.19	71.52	71.95	72.36	72.66	72.91	73.11	73.41	73.59	73.77	74.05	74.41

WTR YR 1984 MEAN 72.93 HIGH 70.90 OCT 5 LOW 74.59 SEP 27



CAMDEN COUNTY

394440074593101. Local I.D., Winslow WC 5 Obs. NJ-WRD Well Number, 07-0503.

LOCATION.--Lat 39°44'40", long 74°59'31", Hydrologic Unit 02040302, about 1,000 ft east of intersection of Cross Keys-Berlin and Erial-Williamstown Roads, Winslow Township.

Owner: Winslow Water Company.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 76 ft, screened 71 to 76 ft.

INSTRUMENTATION.--Water-level extremes recorder, November 1977 to current year. Water-level recorder, December 1972 to September 1977.

DATUM.--Land-surface datum is 173.26 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 1.16 ft above land-surface datum.

PERIOD OF RECORD.--December 1972 to current year. Records for 1972 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.78 ft below land-surface datum, May 20-21, 1973; lowest, 38.35 ft below land-surface datum, between June 3 and Oct. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 31.61 ft below land-surface datum, between July 23 and Sept. 27; lowest, 35.91 ft below land-surface datum, between September 30, 1983 and January 9, 1984.

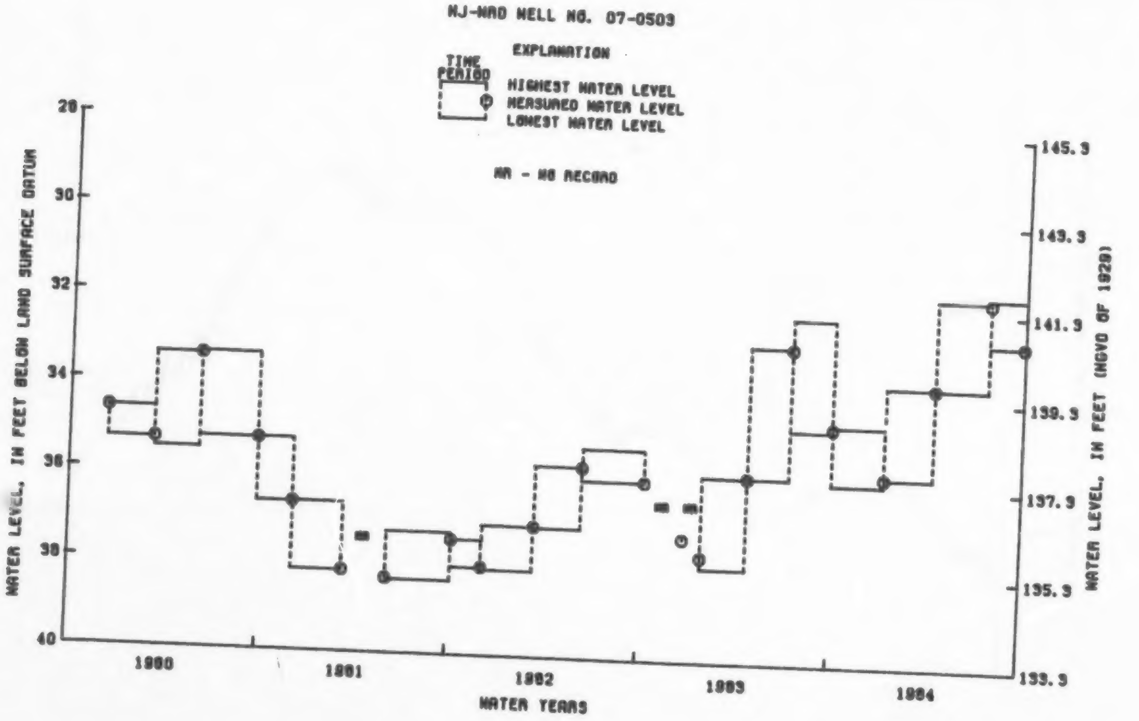
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 9, 1984	34.59	35.91
JAN. 9, 1984 TO APR. 12, 1984	33.67	35.74
APR. 12, 1984 TO JULY 23, 1984	31.68	33.69
JULY 23, 1984 TO SEPT. 27, 1984	31.61	32.67

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 9, 1984	35.74
APR. 12, 1984	33.69
JULY 23, 1984	31.72
SEPT. 27, 1984	32.67



CUMBERLAND COUNTY

392512074521206. Local I.D., Ragovin 2100 Obs. NJ-WRD Well Number 11-0137.

LOCATION.--Lat 39°25'12", long 74°52'12", Hydrologic Unit 02040302, in wooded area off Harriet Avenue, 1.5 mi southeast of Milmay.

Owner: Sam DeRosa.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in, depth 2,093 ft, screened 2,083 to 2,093 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Altitude of land-surface datum is 85 ft, by altimeter.

Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.

REMARKS.--Land-surface datum prior to October 1979, 6.0 ft higher. This well is screened in a saline zone of the aquifer system (Luzier, 1980, p. 8-12). An equivalent freshwater head is obtained by multiplying the column of water in the well by the ratio of density of water in the well to the density of freshwater. In 1974, the density of water was 1.011 grams per milliliter at 20°C and a plus 17 foot correction was needed to obtain the equivalent freshwater head.

PERIOD OF RECORD.--October 1974 to April 1975, February 1977 to current year. Records for 1974 to 1977 are unpublished and are available in files of New Jersey District Office.

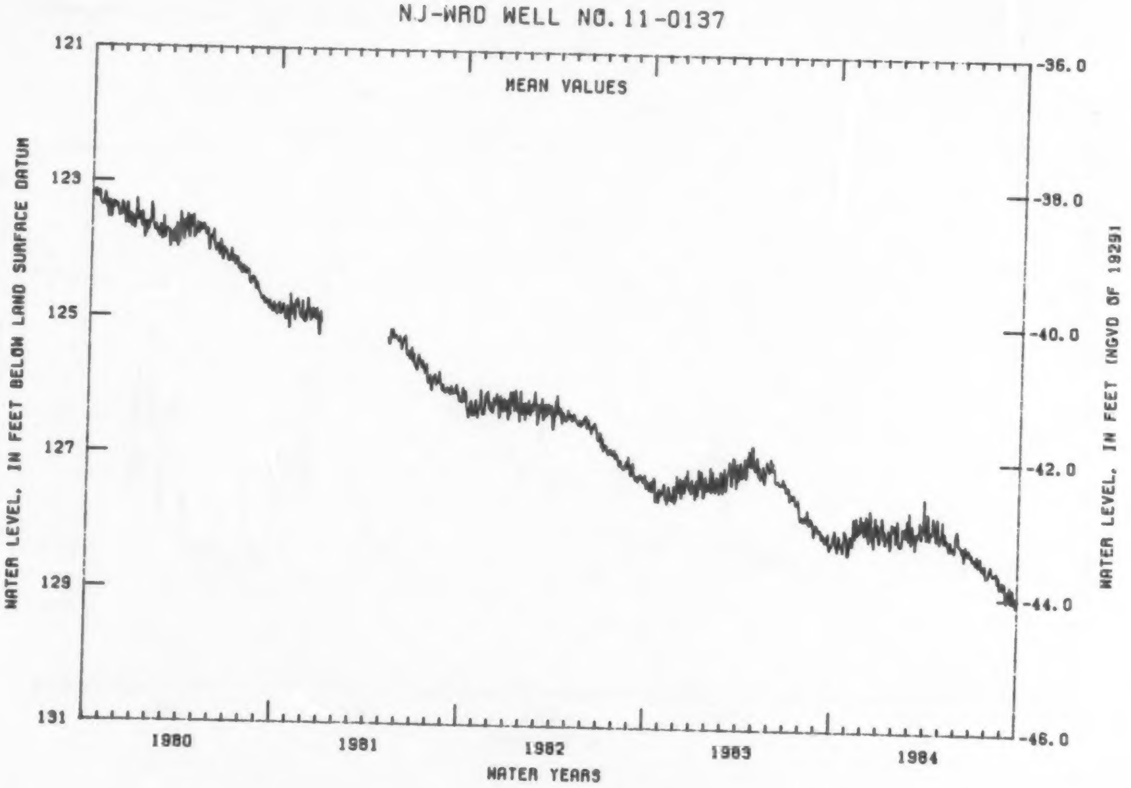
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.82 ft below land-surface datum, Apr. 3, 1975; lowest, 129.12 ft below land-surface datum, Sept. 28, 1984.

EXTREMES FOR CURRENT YEAR.--Highest water level, 127.40 ft below land-surface datum, Mar. 29; lowest, 129.12 ft below land-surface datum, Sept. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	128.00	128.09	127.95	127.89	127.84	128.05	127.73	128.05	128.19	128.39	128.55	128.84
10	128.30	128.03	128.10	128.01	128.23	128.15	128.06	128.13	128.23	128.44	128.62	128.88
15	128.19	128.05	127.83	128.12	127.96	128.11	127.92	128.18	128.33	128.50	128.62	128.79
20	128.29	128.00	128.19	128.13	127.95	128.01	128.03	128.14	128.28	128.53	128.63	123.83
25	128.07	127.78	127.91	127.89	127.85	128.00	127.90	128.27	128.25	128.55	128.79	128.95
EOM	128.37	127.97	128.18	127.92	127.78	127.97	128.06	128.02	128.32	128.66	128.72	129.00
MEAN	128.18	128.03	127.99	128.04	128.03	128.01	127.99	128.15	128.25	128.48	128.65	128.93

WTR YR 1984 MEAN 128.23 HIGH 127.52 MAR 29 LOW 129.10 SEP 27



ESSEX COUNTY

404452074211601. Local I.D., Canoe Brook 30 Obs. NJ-WRD Well Number, 13-0013.

LOCATION.--Lat 40°44'52", long 74°21'16", Hydrologic Unit 02030103, about 0.3 mi north of Canoe Brook pumping station, near Chatham.

Owner: Commonwealth Water Company.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 10 in, depth about 130 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 170.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelf, 6.60 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--September 1925 to May 1975, April 1977 to July 1984 (discontinued).

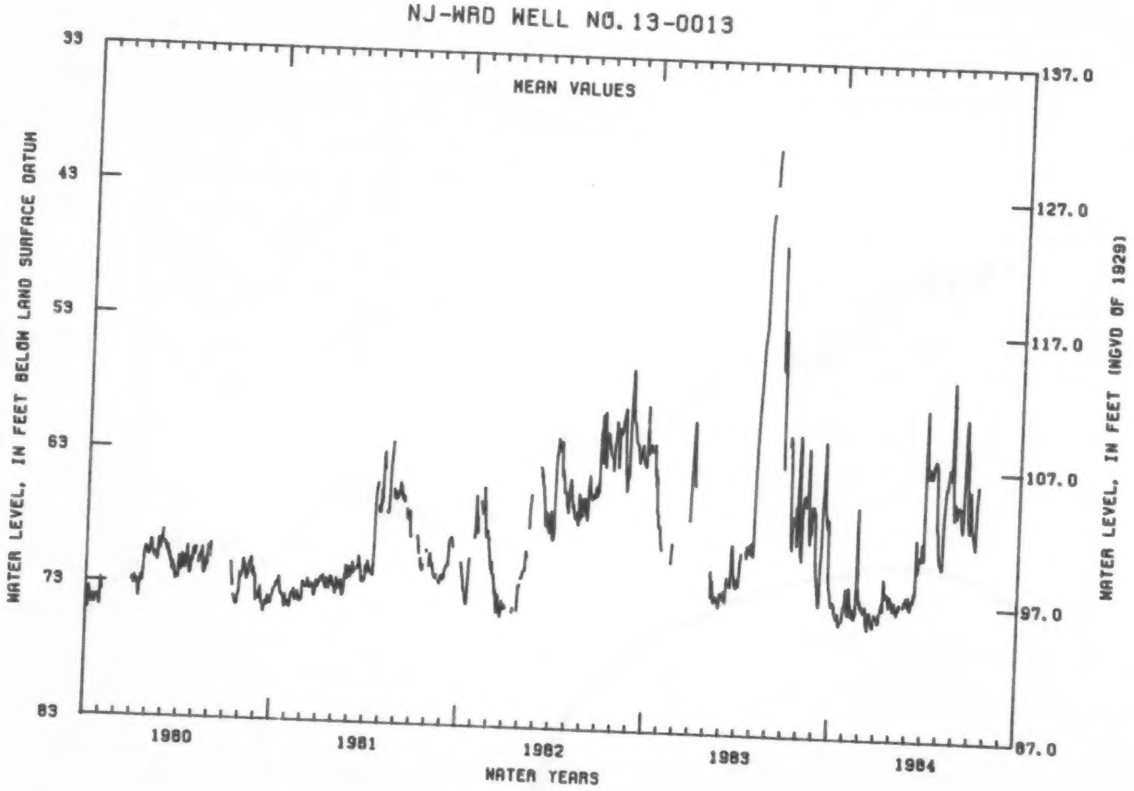
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.25 ft below land-surface datum, Aug. 25, 1931; lowest, 86.70 ft below land-surface datum, Oct. 23, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 54.59 ft below land-surface datum, May 21; lowest, 74.91 ft below land-surface datum, Dec. 11.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.04	72.82	73.38	73.35	73.51	72.91	62.81	66.55	65.57	68.27		
10	74.04	73.70	74.61	71.03	73.09	72.49	63.48	64.29	67.43	63.95		
15	74.39	74.01	73.59	72.20	---	70.35	62.51	63.02	59.05	---		
20	74.24	70.28	74.49	72.83	72.60	69.65	62.78	56.32	65.01	---		
25	73.16	72.64	73.74	72.64	72.40	68.34	68.47	66.51	64.33	---		
EOM	73.50	73.33	74.32	72.84	72.32	61.99	69.70	66.04	67.31	---		
MEAN	73.54	72.79	73.96	72.74	72.93	69.95	64.63	64.81	64.97	---		

WTR YR 1984 MEAN 69.86 HIGH 56.32 MAY 20 LOW 74.84 DEC 11

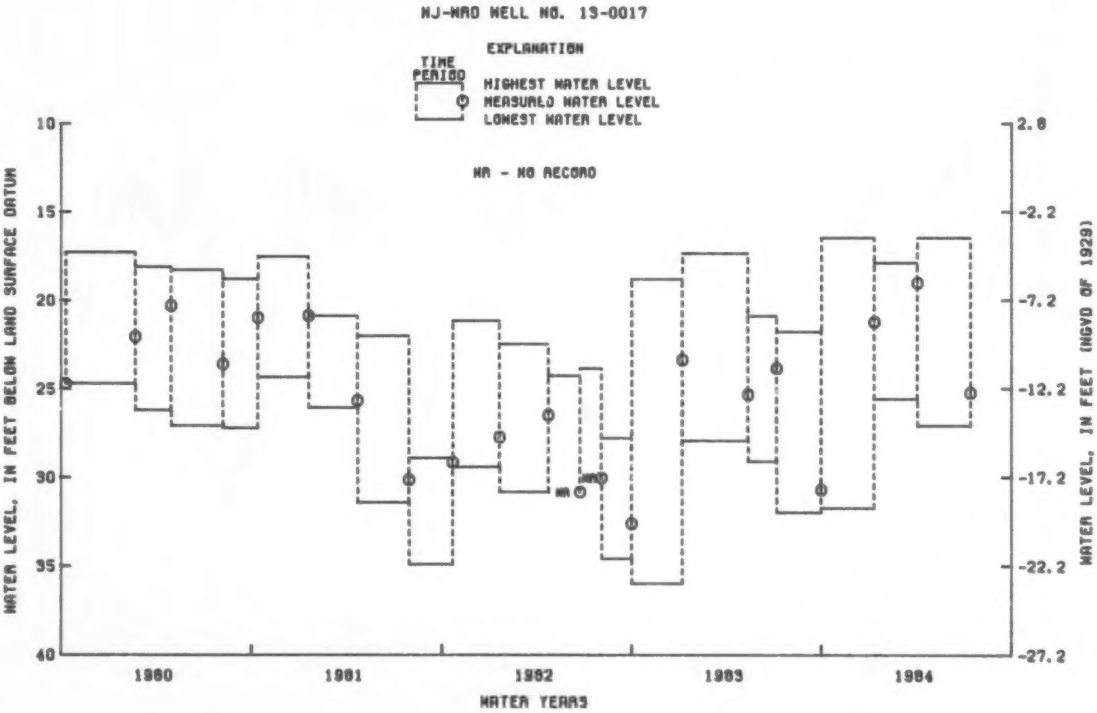


ESSEX COUNTY

404401074083401. Local I.D., Ballantine 8 Obs. NJ-WRD Well Number, 13-0017.
LOCATION.--Lat 40°44'01", long 74°08'34", Hydrologic Unit 02030103, near intersection of Raymond Boulevard and Richard Street, Newark.
Owner: Balco Company.
AQUIFER.--Brunswick Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 16 in, cased to 95 ft, depth 875 ft, open hole.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, January 1949 to July 1975.
DATUM.--Land-surface datum is 12.79 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.77 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping prior to the early 1970's.
PERIOD OF RECORD.--January 1949 to July 1975, April 1977 to July 1984 (discontinued). Records for 1949 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.47 ft below land-surface datum, between September 30, 1983 and January 10, 1984; lowest, 216.59 ft below land-surface datum, Sept. 20, 1957.
EXTREMES FOR CURRENT YEAR.--Highest water level, 16.47 ft below land-surface datum, between September 30, 1983 and January 10, 1984; lowest, 31.74 ft below land-surface datum, between Sept. 30, 1983 and Jan. 10, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 10, 1984	16.47	31.74	JAN. 10, 1984	21.25
JAN. 10, 1984 TO APR. 2, 1984	17.90	25.60	APR. 2, 1984	19.03
APR. 2, 1984 TO JULY 13, 1984	16.49	27.12	JULY 13, 1984	25.24



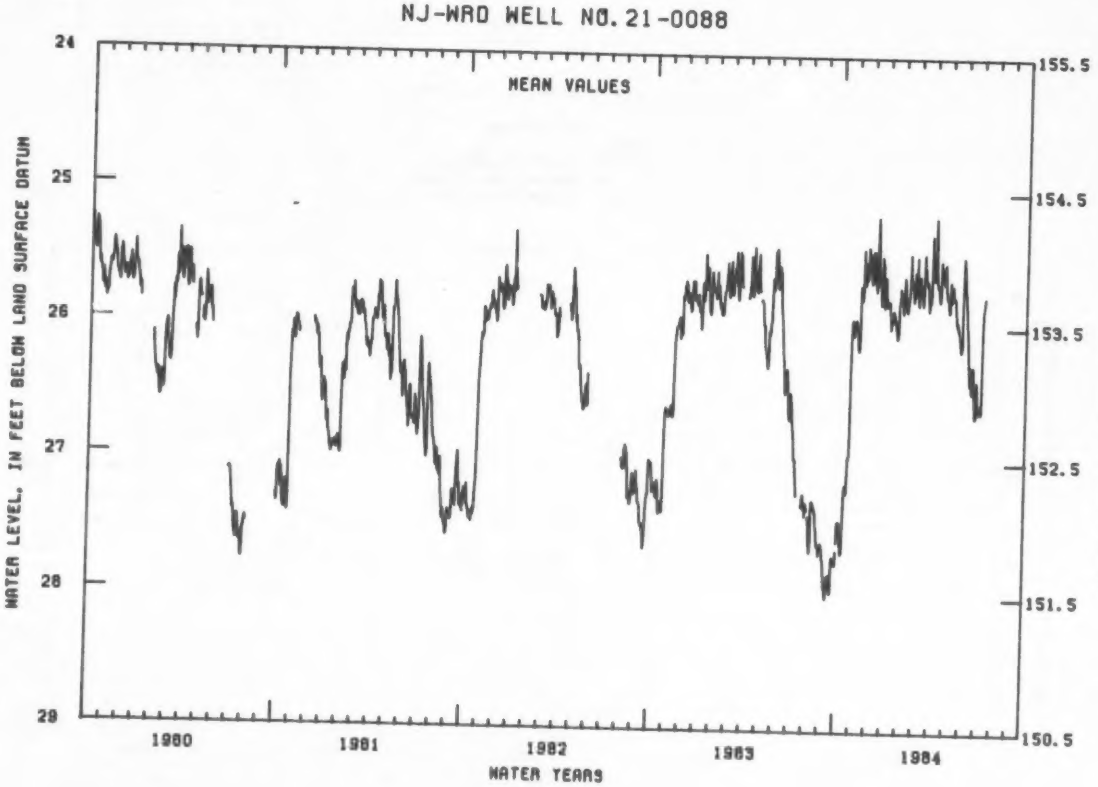
MERCER COUNTY

402131074461201. Local I.D., Honey Branch 10 Obs. NJ-WRD Well Number, 21-0088.
LOCATION.--Lat 40°21'28", long 74°46'13", Hydrologic Unit 02030105, at Stony Brook-Millstone Watershed Association, near Pennington.
Owner: Stony Brook-Millstone Watershed Association.
AQUIFER.--Brunswick Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, cased to about 20 ft, depth 150 ft, open hole.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 179.50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--June 1967 to August 1975, April 1977 to July 1984 (discontinued). Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.63 ft below land-surface datum, July 21, 1967; lowest, 28.05 ft below land-surface datum, Sept. 12, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 25.02 ft below land-surface datum, Apr. 5; lowest, 27.71 ft below land-surface datum, Oct. 10-11.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.44	26.00	25.56	25.82	25.64	25.73	25.18	25.76	25.83	26.63		
10	27.68	26.04	25.68	25.92	25.88	25.76	25.67	25.76	26.21	25.81		
15	27.17	25.72	25.52	25.90	25.45	25.55	25.70	25.86	26.4	---		
20	26.96	25.66	25.78	26.01	25.67	25.68	25.56	26.01	26.40	---		
25	26.07	25.40	25.68	25.81	25.62	25.77	25.63	26.13	26.39	---		
EOM	26.01	25.60	25.78	25.78	25.58	25.52	25.75	25.52	26.62	---		
MEAN	27.00	25.76	25.62	25.88	25.71	25.68	25.63	25.87	26.26	---		

WTR YR 1984 MEAN 25.95 HIGH 25.18 DEC 13 AND OTHERS LOW 27.68 OCT 10



MIDDLESEX COUNTY

402015074275702. Local I.D., Forsgate 4 Obs.. NJ-WRD Well Number, 23-0229.

LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, on Hanover Lane at Rossmoor, Monroe Township. Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 330 ft, screened 319 to 330 ft.

INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1965 to August 1967, August 1968 to August 1975.

DATUM.--Land-surface datum is 147.34 ft above National Geodetic Vertical Datum of 1929. Measuring point: Front edge of cutout in recorder housing, 1.50 ft below land-surface datum.

PERIOD OF RECORD.--April 1965 to August 1967, August 1968 to August 1975, January 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.09 ft below land-surface datum, July 16, 1973; lowest, 99.36 ft below land-surface datum, between June 8 and Sept. 29, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 91.68 ft below land-surface datum, Sept. 27; lowest, 96.86 ft below land-surface datum, between Sept. 30, 1983 and Jan. 12, 1984.

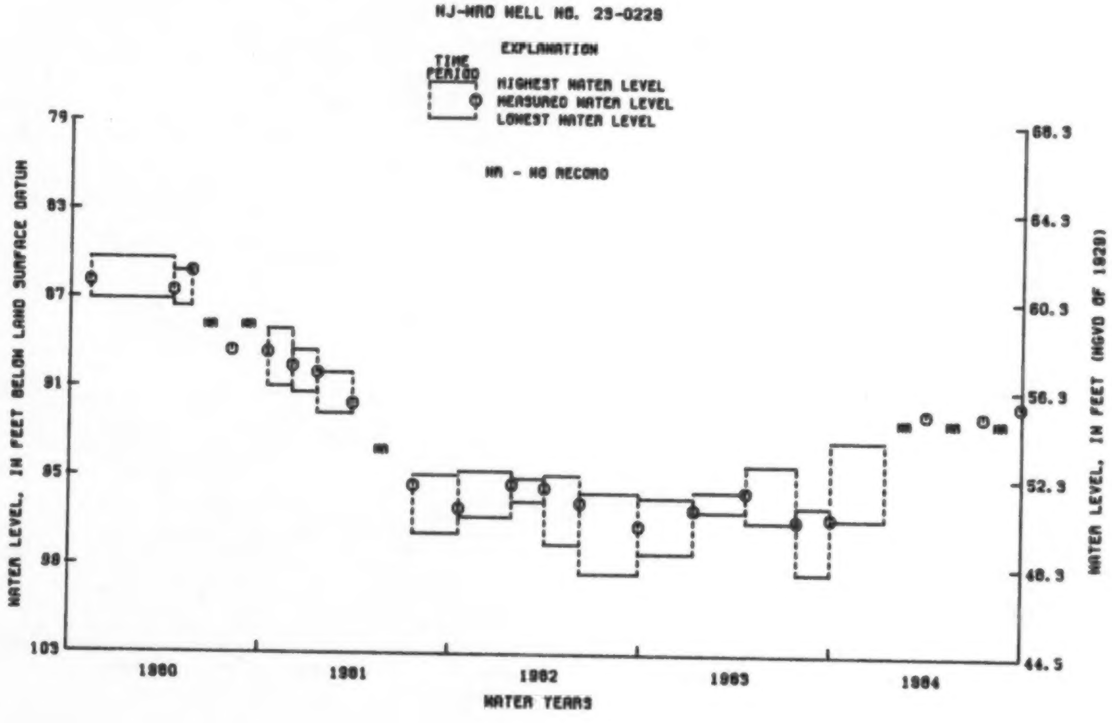
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 30, 1983 TO JAN. 12, 1984	93.32	96.86
JAN. 12, 1984 TO MAR. 30, 1984	---	---
MAR. 30, 1984 TO JULY 17, 1984	---	---
JULY 17, 1984 TO SEPT. 27, 1984	---	---

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 12, 1984	---
MAR. 30, 1984	92.08
JULY 17, 1984	92.16
SEPT. 27, 1984	91.68

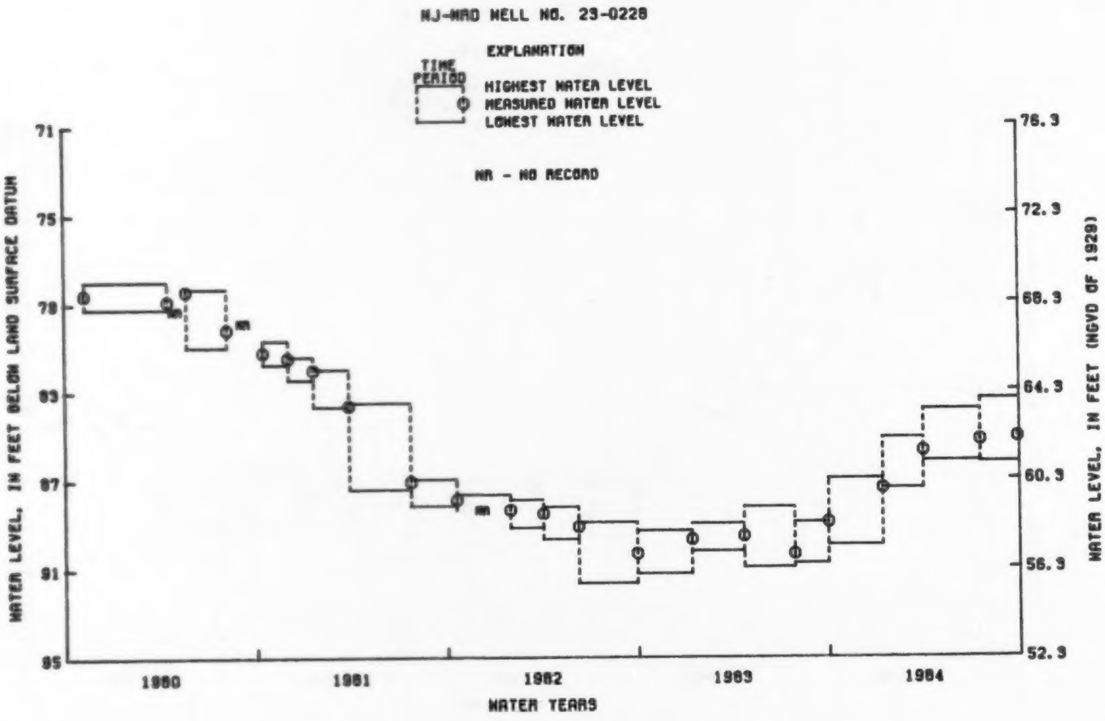


MIDDLESEX COUNTY

402015074275701. Local I.D., Forsgate 3 Obs. NJ-WRD Well Number, 23-0228.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, on Hanover Lane at Rossmoor, Monroe Township. Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 138 ft, screened 128 to 138 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, October 1961 to August 1967, August 1968 to August 1975.
DATUM.--Land-surface datum is 147.34 ft above National Geodetic Vertical Datum of 1929. Measuring point: Front edge of cutout in recorder housing, 1.40 ft below land-surface datum.
PERIOD OF RECORD.--October 1961 to August 1967, August 1968 to August 1975, January 1977 to current year. Records for 1961 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.32 ft below land-surface datum, May 6, 1962; lowest, 91.66 ft below land-surface datum, between June 8 and Sept. 29, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 83.37 ft below land-surface datum, between July 17 and Sept. 27; lowest, 89.94 ft below land-surface datum, between Sept. 30, 1983 and Jan. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 12, 1984	86.95	89.94	JAN. 12, 1984	87.39
JAN. 12, 1984 TO MAR. 30, 1984	85.11	87.39	MAR. 30, 1984	85.72
MAR. 30, 1984 TO JULY 17, 1984	83.84	86.18	JULY 17, 1984	85.25
JULY 17, 1984 TO SEPT. 27, 1984	83.37	86.24	SEPT. 27, 1984	85.12

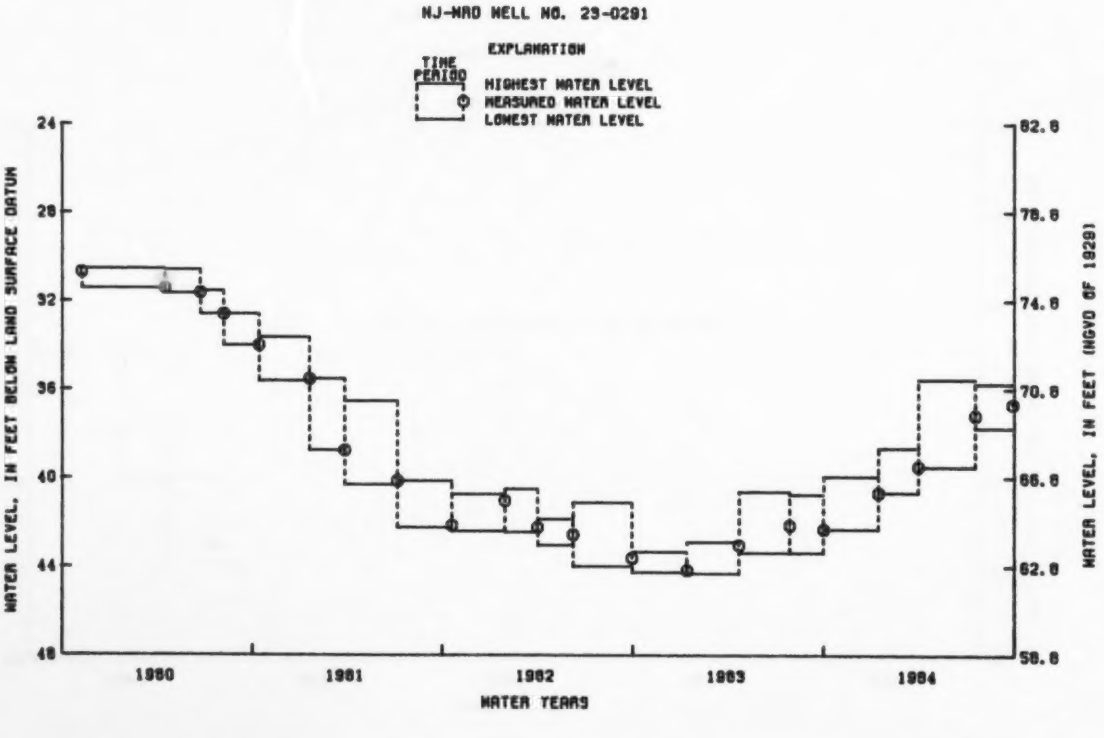


MIDDLESEX COUNTY

402109074301301. Local I.D., Forsgate 1 Obs. NJ-WRD Well Number, 23-0291.
LOCATION.--Lat 40°21'09", long 74°30'13", Hydrologic Unit 02030105, about 0.4 mi west of Route 130 on Friendship Road, South Brunswick Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 203 ft, screened 192 to 203 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1965 to August 1975.
DATUM.--Land-surface datum is 106.79 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.06 ft above land-surface datum.
PERIOD OF RECORD.--April 1965 to August 1975, January 1977 to September 1984 (discontinued). Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.70 ft below land-surface datum, July 5, 1973; lowest, 44.31 ft below land-surface datum, between Jan. 12 and Apr. 21, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 35.55 ft below land-surface datum, between Mar. 30 and July 17; lowest, 42.31 ft below land-surface datum, between Sept. 30, 1983 and Jan. 13, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 13, 1984	39.93	42.31	JAN. 13, 1984	40.67
JAN. 13, 1984 TO MAR. 30, 1984	38.65	40.67	MAR. 30, 1984	39.49
MAR. 30, 1984 TO JULY 17, 1984	35.55	39.52	JULY 17, 1984	37.19
JULY 17, 1984 TO SEPT. 27, 1984	35.75	37.76	SEPT. 27, 1984	36.68



MIDDLESEX COUNTY

402109074301302. Local I.D., Forsgate 2 Obs. NJ-WRD Well Number, 23-0292.

LOCATION.--Lat 40°21'09", long 74°30'13", Hydrologic Unit 02030105, about 0.4 mi west of Route 130 on Friendship Road, South Brunswick Township.

Owner: Monroe Township Municipal Utilities Authority.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 104 ft, screened 93 to 104 ft.

INSTRUMENTATION.--Water-level extremes recorder, August 1983 to current year. Water-level recorder, October 1961 to August 1975.

DATUM.--Land-surface datum is 106.89 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.86 ft above land-surface datum.

PERIOD OF RECORD.--October 1961 to August 1975, August 1983 to September 1984 (discontinued). Periodic manual measurements, January 1977 to July 1983. Records for 1961 to 1983 are unpublished and are available in files of New Jersey District Office.

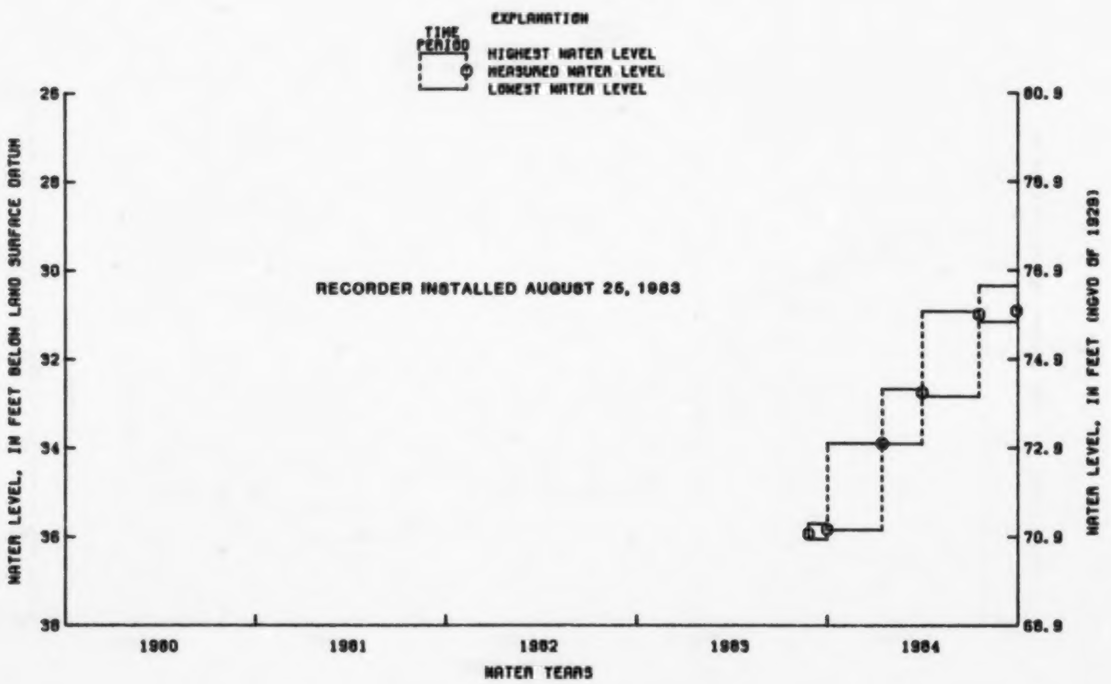
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.09 ft below land-surface datum, May 2-3, 1962; lowest, 36.98 ft below land-surface datum, September 29, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 30.34 ft below land-surface datum, between July 17 and Sept. 27; lowest, 35.85 ft below land-surface datum, between Sept. 30, 1983 and Jan. 13, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 13, 1984	33.90	35.85	JAN. 13, 1984	33.90
JAN. 13, 1984 TO MAR. 30, 1984	32.67	33.91	MAR. 30, 1984	32.75
MAR. 30, 1984 TO JULY 17, 1984	30.92	32.84	JULY 17, 1984	30.99
JULY 17, 1984 TO SEPT. 27, 1984	30.34	31.16	SEPT. 27, 1984	30.91

NJ-WRD WELL NO. 23-0292

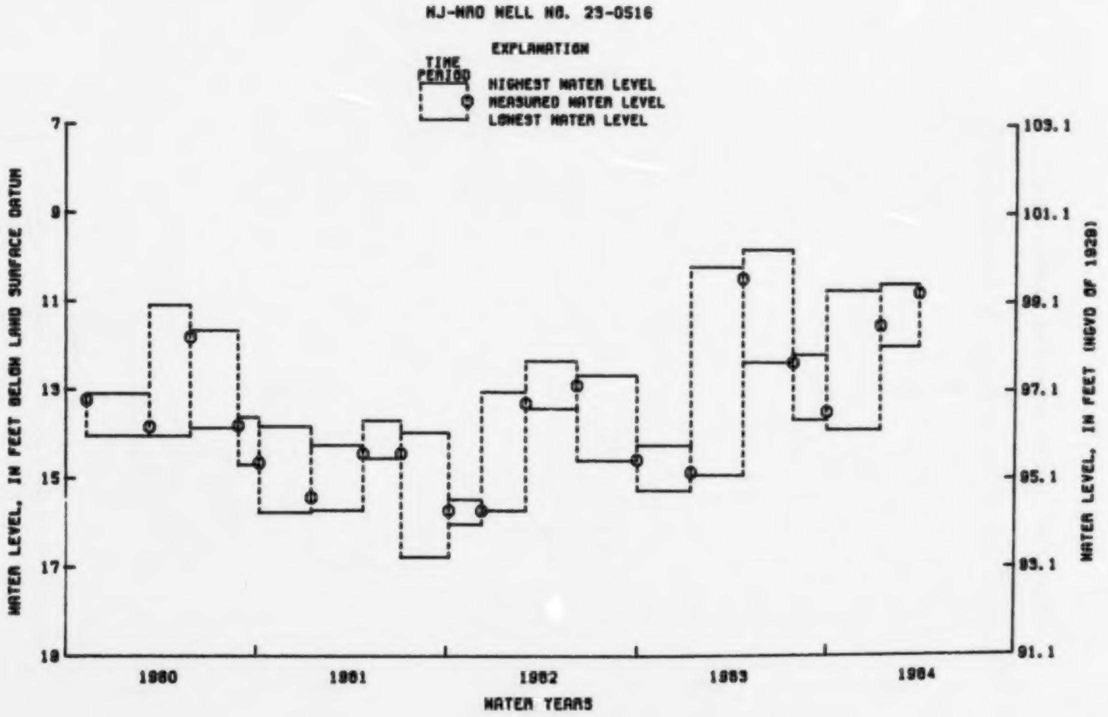


MIDDLESEX COUNTY

402122074184601. Local I.D., Hulsart Obs. NJ-WRD Well Number, 23-0516.
LOCATION.--Lat 40°21'23", long 74°18'49", Hydrologic Unit 02030105, on the east side of Marlboro Road, 0.4 mi southeast of Texas Road, Old Bridge Township.
Owner: Walter Novak.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 4.5 ft, depth 19 ft, lined with concrete blocks.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, June 1936 to December 1976.
DATUM.--Land-surface datum is 110.06 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of angle iron at bottom of shelter doors, 1.80 ft above land-surface datum.
PERIOD OF RECORD.--June 1936 to March 1984 (discontinued). Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.40 ft below land-surface datum, July 20, 1972; lowest, 16.78 ft below land-surface datum, between July 6 and Oct. 6, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 10.59 ft below land-surface datum, between Jan. 12 and Mar. 27; lowest, 13.88 ft below land-surface datum, between Sept. 30, 1983 and Jan. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 12, 1984	10.74	13.88	JAN. 12, 1984	11.53
JAN. 12, 1984 TO MAR. 27, 1984	10.59	12.00	MAR. 27, 1984	10.79

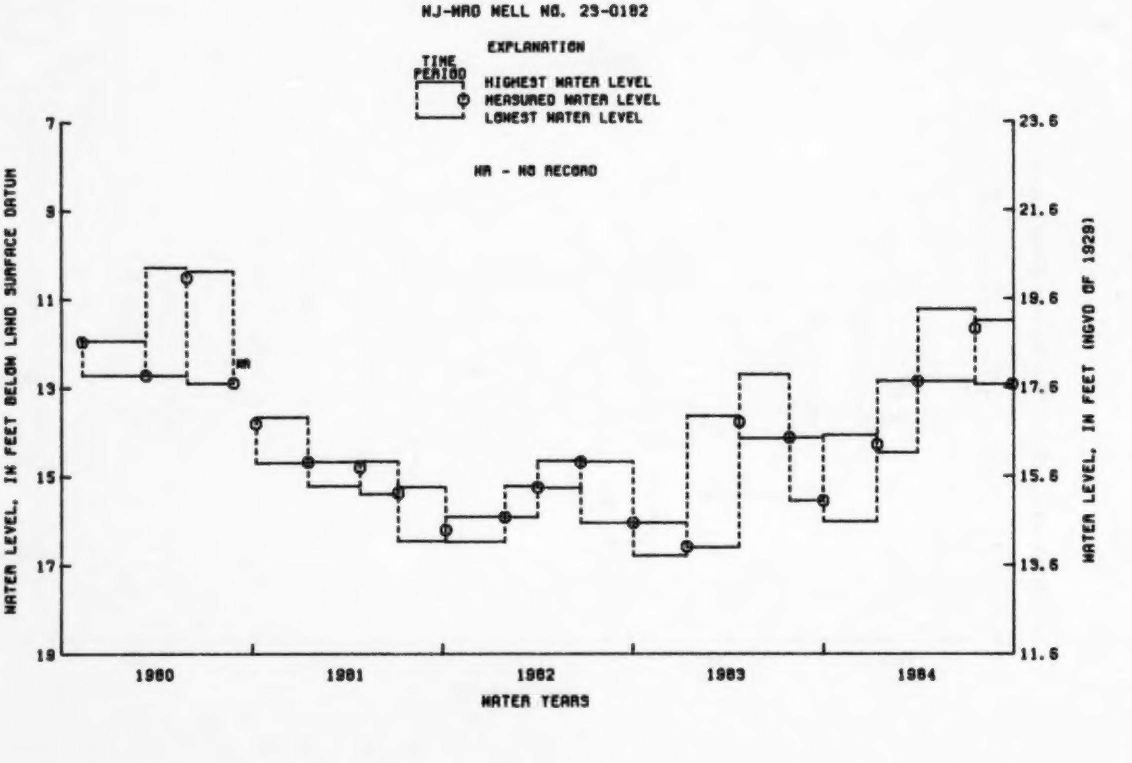


MIDDLESEX COUNTY

402450074181801. Local I.D., Browntown Obs. NJ-WRD Well Number, 23-0182.
LOCATION.--Lat 40°24'49", long 74°18'19", Hydrologic Unit 02030105, on the east side of Route 9, about 1.0 mi north of Browntown.
Owner: Old Bridge Municipal Utilities Authority.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 71 ft, perforated pipe 66 to 71 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, November 1932 to August 1975.
DATUM.--Land-surface datum is 30.58 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.17 ft above land-surface datum.
PERIOD OF RECORD.--November 1932 to August 1975, January 1977 to September 1984 (discontinued). Records for 1932 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.44 ft below land-surface datum, Apr. 9-10, 1939; lowest, 16.79 ft below land-surface datum, between Oct. 1, 1982 and Jan. 12, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 11.23 ft below land-surface datum, between Mar. 29 and July 17; lowest, 16.02 ft below land-surface datum, between Sept. 30, 1983 and Jan. 11, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 11, 1984	14.07	16.02	JAN. 11, 1984	14.29
JAN. 11, 1984 TO MAR. 29, 1984	12.85	14.47	MAR. 29, 1984	12.86
MAR. 29, 1984 TO JULY 17, 1984	11.23	12.86	JULY 17, 1984	11.68
JULY 17, 1984 TO SEPT. 27, 1984	11.49	12.93	SEPT. 27, 1984	12.93



MIDDLESEX COUNTY

402553074271701. Local I.D., Robert Fischer Obs. NJ-WRD Well Number, 23-0070.

LOCATION.--Lat 40°25'55", long 74°27'19", Hydrologic Unit 02030105, about 1,800 ft southeast of Weber School on Hardenburg Lane, East Brunswick Township.

Owner: Robert D. Fischer.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Dug water-table observation well, diameter 4.5 ft, depth 21 ft, cased to 17 ft.

INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, June 1936 to April 1975.

DATUM.--Land-surface datum is 73.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of angle iron at bottom of shelter doors, 1.70 ft above land-surface datum.

REMARKS.--Well deepened October 29, 1965 from 17 to 21 ft.

PERIOD OF RECORD.--June 1936 to April 1975, January 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.88 ft below land-surface datum, Apr. 26-27, 1939; lowest, 19.11 ft below land-surface datum, between July 24 and Oct. 6, 1981; well was dry many times, 1963-1965 before deepening.

EXTREMES FOR CURRENT YEAR.--Highest water level, 11.66 ft below land-surface datum, between Mar. 30 and July 17; lowest, 16.93 ft below land-surface datum, between Oct. 1, 1983 and Jan. 11, 1984.

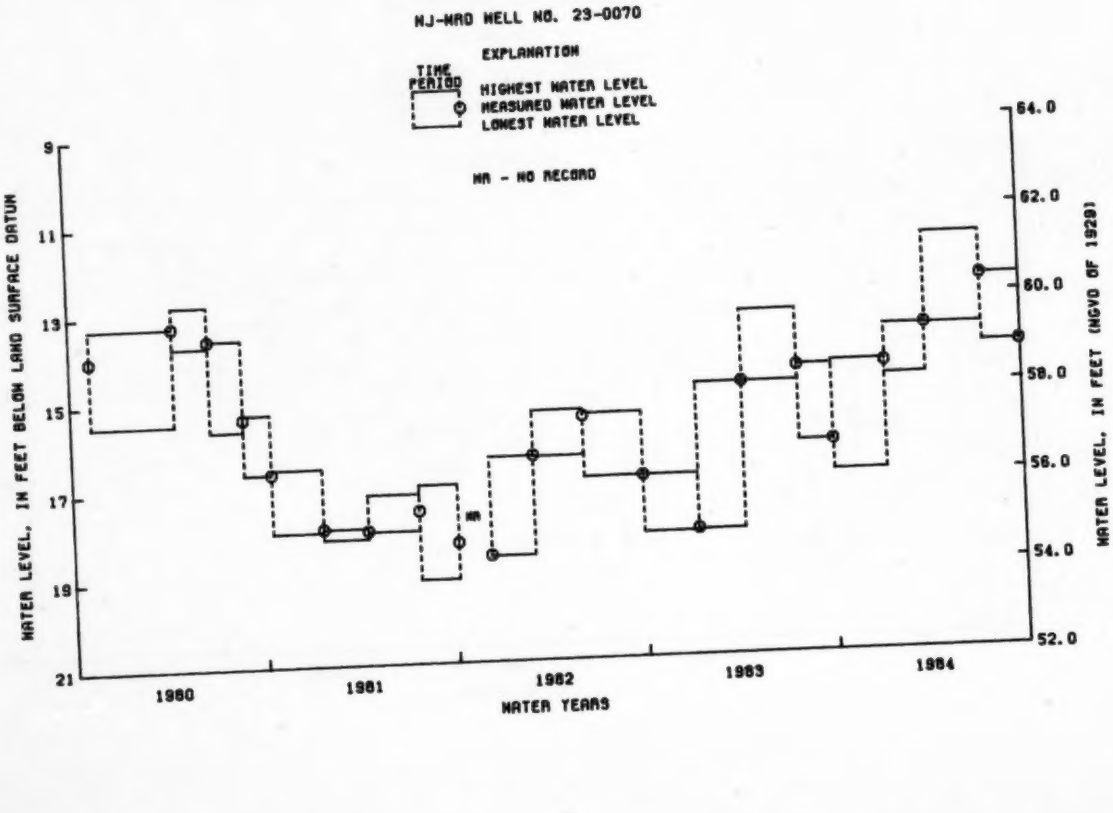
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 1, 1983 TO JAN. 11, 1984	14.46	16.93
JAN. 11, 1984 TO MAR. 30, 1984	13.69	14.80
MAR. 30, 1984 TO JULY 17, 1984	11.66	13.71
JULY 17, 1984 TO SEPT. 27, 1984	12.62	14.14

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 11, 1984	14.52
MAR. 30, 1984	13.69
JULY 17, 1984	12.63
SEPT. 27, 1984	14.14

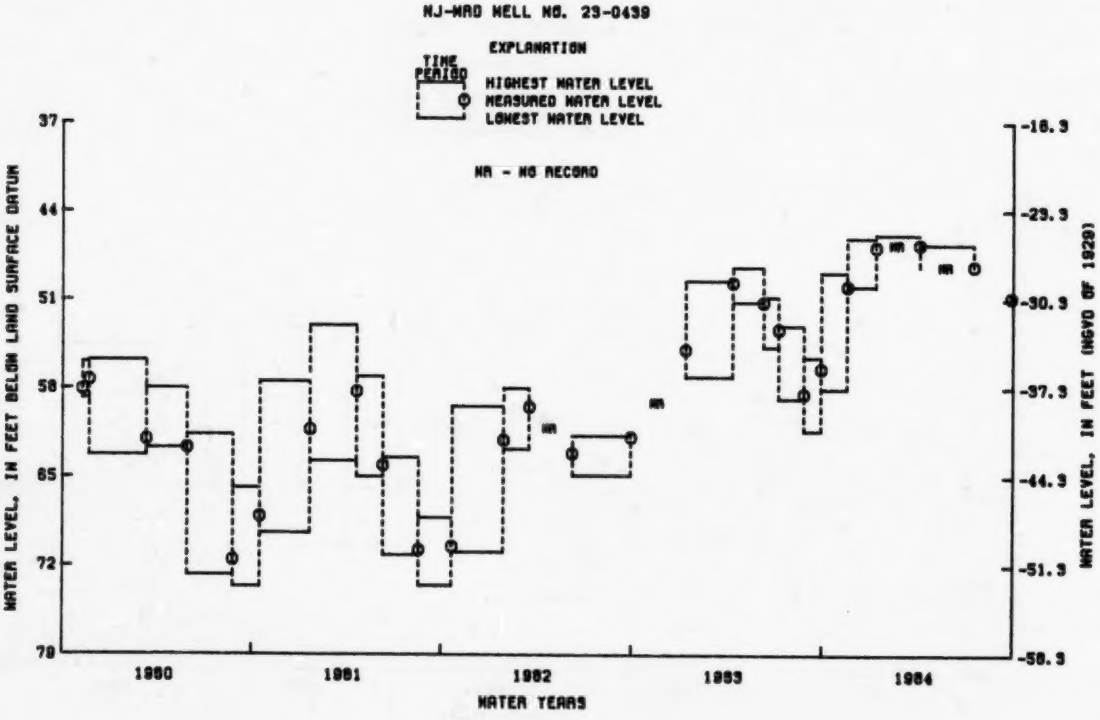


MIDDLESEX COUNTY

402633074220001. Local I.D., South River 2 Obs. NJ-WRD Well Number, 23-0439.
LOCATION.--Lat 40°26'33", long 74°22'00", Hydrologic Unit 02030105, at the corner of Whitehead Avenue and Anne Street, South River.
Owner: South River Utilities.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 126 ft, screened 121 to 126 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, January 1968 to August 1975.
DATUM.--Land-surface datum is 20.69 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.55 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--January 1968 to August 1975, January 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.37 ft below land-surface datum, Jan. 30, 1968; lowest, 73.64 ft below land-surface datum, between Aug. 25 and Oct. 16, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 45.87 ft below land-surface datum, between Jan. 11 and Apr. 4; lowest, 58.08 ft below land-surface datum, between Sept. 28 and Nov. 17, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1983 TO NOV. 17, 1983	48.85	58.08	NOV. 17, 1983	49.95
NOV. 17, 1983 TO JAN. 11, 1984	46.14	49.98	JAN. 11, 1984	46.86
JAN. 11, 1984 TO APR. 4, 1984	45.87	---	APR. 4, 1984	46.65
APR. 4, 1984 TO JULY 17, 1984	46.65	---	JULY 17, 1984	48.36
JULY 17, 1984 TO SEPT. 27, 1984	---	---	SEPT. 27, 1984	50.83



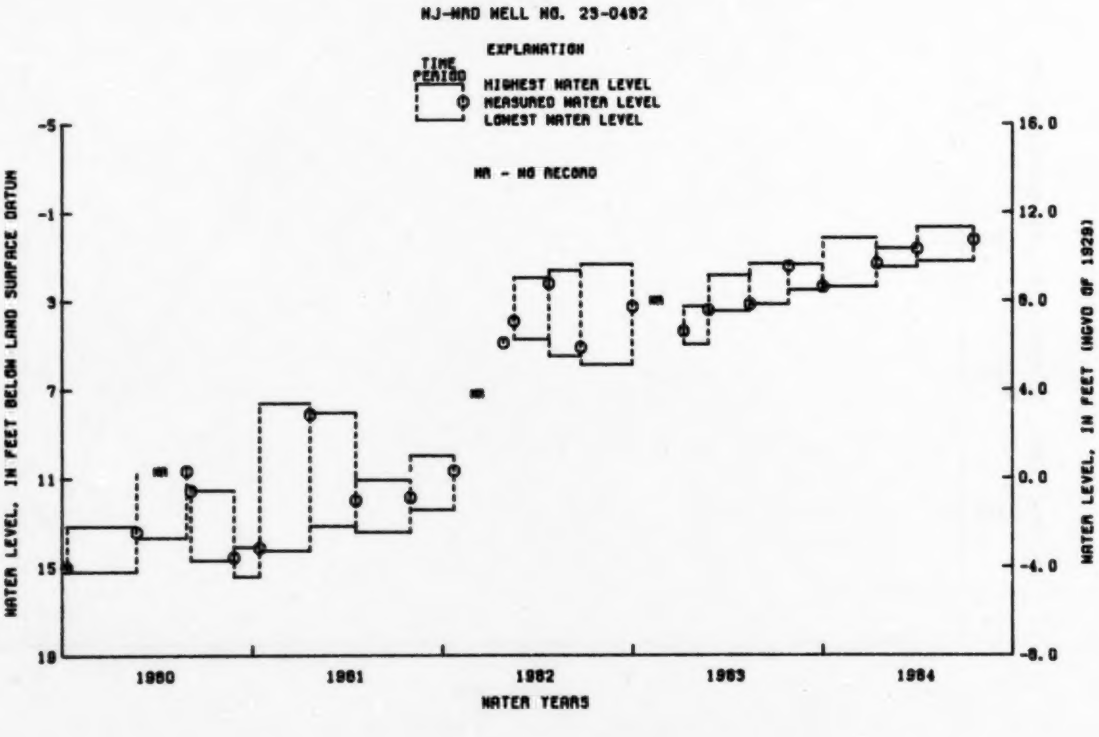
MIDDLESEX COUNTY

403242074161701. Local I.D., American Cyanamid 1 Obs. NJ-WRD Well Number, 23-0482.
LOCATION.--Lat 40°32'42", long 74°16'17", Hydrologic Unit 02030104, at rear of plant near Cutters Dock Road, Woodbridge Township.
Owner: American Cyanamid Company.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 76 ft, screened 44 to 54 ft and 64 to 76 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, October 1950 to June 1970.
DATUM.--Land-surface datum is 11.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.12 ft above land-surface datum.
PERIOD OF RECORD.--October 1950 to June 1970, January 1977 to July 1984 (discontinued). Periodic manual measurements, July 1970 to June 1975. Records for 1950 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.34 ft above land-surface datum, between Mar. 30 and July 17, 1984; lowest, 15.43 ft below land-surface datum, between Aug. 26 and Oct. 14, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.34 ft above land-surface datum, between Mar. 30 and July 17; lowest, 2.36 ft below land-surface datum, between Sept. 30, 1983 and Jan. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 12, 1984	0.14	2.36	JAN. 12, 1984	1.32
JAN. 12, 1984 TO MAR. 30, 1984	0.62	1.47	MAR. 30, 1984	0.65
MAR. 30, 1984 TO JULY 17, 1984	-0.34*	1.21	JULY 17, 1984	0.24

* Water level above land surface.

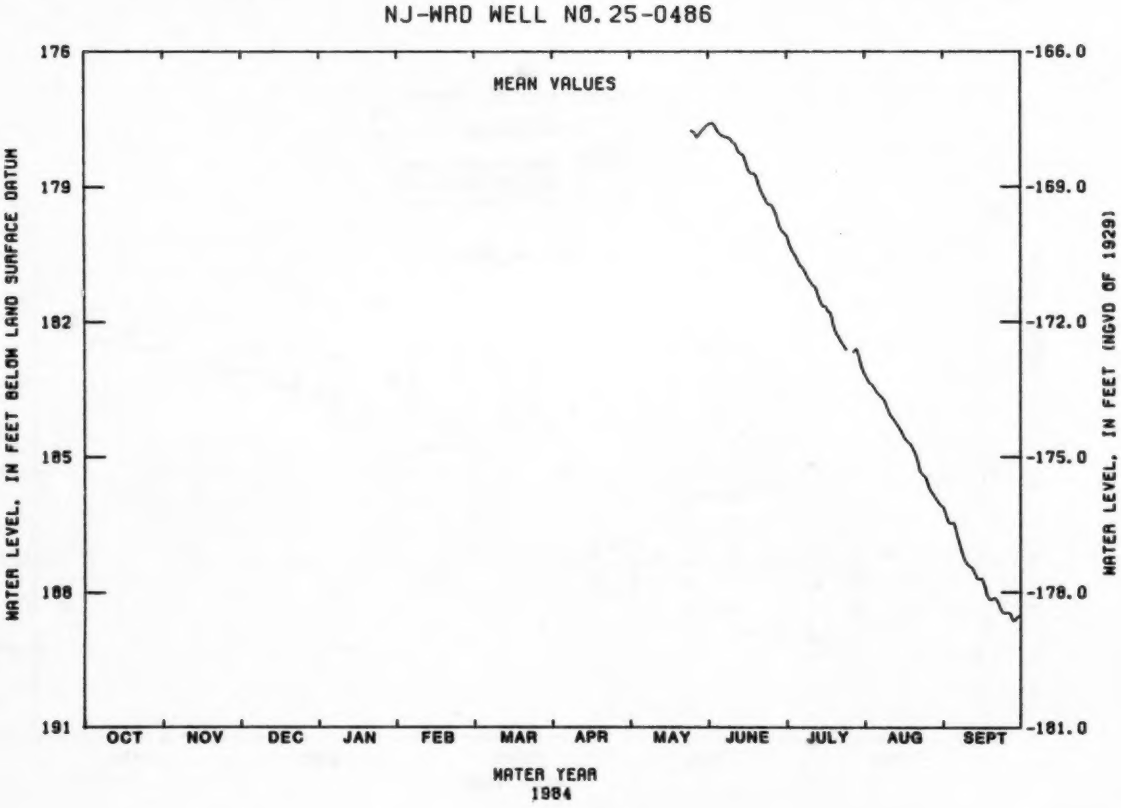


MONMOUTH COUNTY

400711074020201. Local I.D., DOE - Sea Girt Obs. NJ-WRD Well Number, 25-0486.
LOCATION.--Lat 40°07'11", long 74°02'02", Hydrologic Unit 02030104, at the National Guard Camp, Sea Girt.
Owner: State of New Jersey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 988 ft, perforated casing 604 to 614 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Altitude of land-surface datum is 10 ft, from topographic map
Measuring point: Top edge of recorder shelf, 3.20 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--Current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 176.58 ft below land-surface datum, May 25, 1984; lowest, 188.79 ft below land-surface datum, Sept. 28, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5								---	177.84	180.62	183.57	186.67
10								---	178.02	181.10	184.05	187.42
15								---	178.46	181.66	184.49	187.71
20								---	178.97	182.25	184.92	188.12
25								177.76	179.41	---	185.61	188.44
EOM								177.63	180.04	183.14	186.12	188.51
MEAN								---	178.63	181.63	184.64	187.72



MONMOUTH COUNTY

400832074082101. Local I.D., Allaire State Park C Obs. NJ-WRD Well Number, 25-0429.

LOCATION.--Lat 40°08'34", long 74°08'34", Hydrologic Unit 02040301, about 1.3 mi southeast of Lower Squankum, in Allaire State Park, Wall Township.

Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 715 ft, screened 623 to 633 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1964 to July 1975.

DATUM.--Land-surface datum is 97.93 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 1.64 ft above land-surface datum.

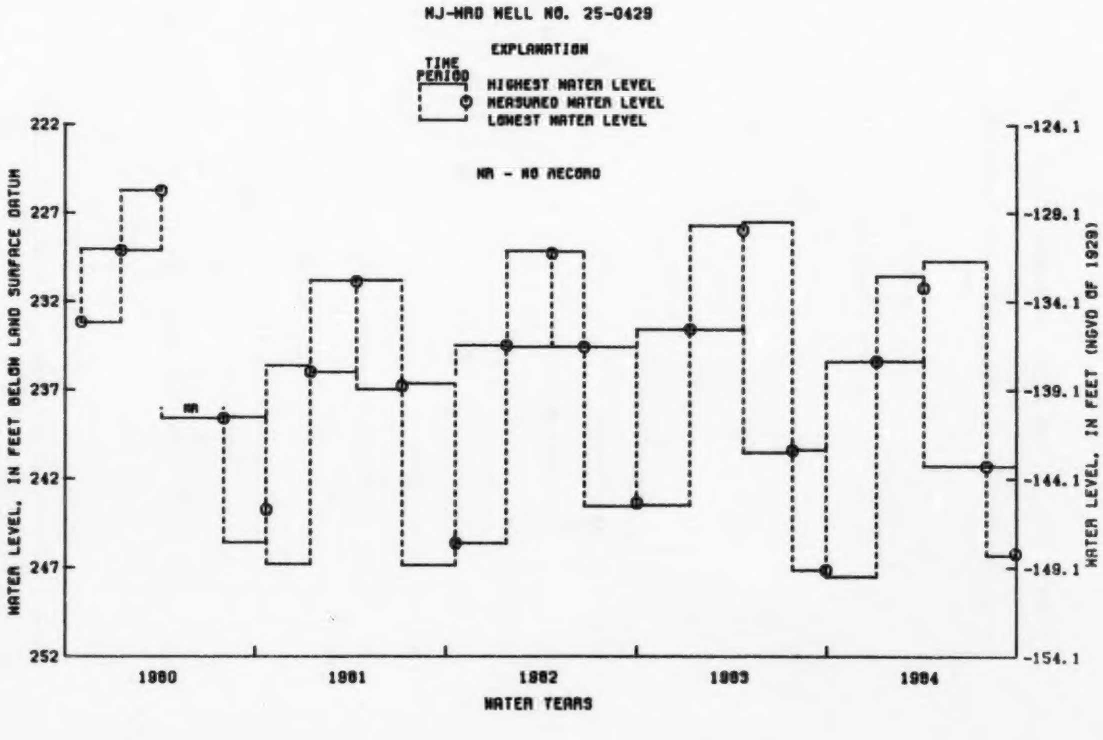
PERIOD OF RECORD.--January 1964 to July 1975, February 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 141.05 ft below land-surface datum, Apr. 8, 1964; lowest, 247.52 ft below land-surface datum, between Sept. 29, 1983 and Jan. 4, 1984.

EXTREMES FOR CURRENT YEAR.--Highest water level, 229.72 ft below land-surface datum, between Apr. 4 and Aug. 3; lowest, 247.52 ft below land-surface datum, between Sept. 29, 1983 and Jan. 4, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1983 TO JAN. 4, 1984	235.38	247.52	JAN. 4, 1984	235.38
JAN. 4, 1984 TO APR. 4, 1984	230.56	235.38	APR. 4, 1984	231.23
APR. 4, 1984 TO AUG. 3, 1984	229.72	241.30	AUG. 3, 1984	241.30
AUG. 3, 1984 TO SEPT. 28, 1984	241.30	246.30	SEPT. 28, 1984	246.20



MONMOUTH COUNTY

401518074223001. Local I.D., Manalapan 1 Obs. NJ-WRD Well Number, 25-0216.
LOCATION.--Lat 40°15'18", long 74°22'30", Hydrologic Unit 02030105, on the north side of Route 33, about 1,600 ft west of Woodward Road, Manalapan Township.
Owner: Manalapan Township Water Department.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 185 ft, screened 113 to 136 ft and 158 to 174 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1971 to July 1975.
DATUM.--Land-surface datum is 122.11 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.28 ft above land-surface datum.
PERIOD OF RECORD.--April 1971 to July 1975, January 1977 to September 1984 (discontinued). Records for 1971 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.00 ft below land-surface datum, May 19-20, 1973; lowest, 4.68 ft below land-surface datum, between July 29 and Oct. 20, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.90 ft below land-surface datum, between Mar. 27 and July 12; lowest, 3.55 ft below land-surface datum, between Sept. 29, 1983 and Jan. 13, 1984.

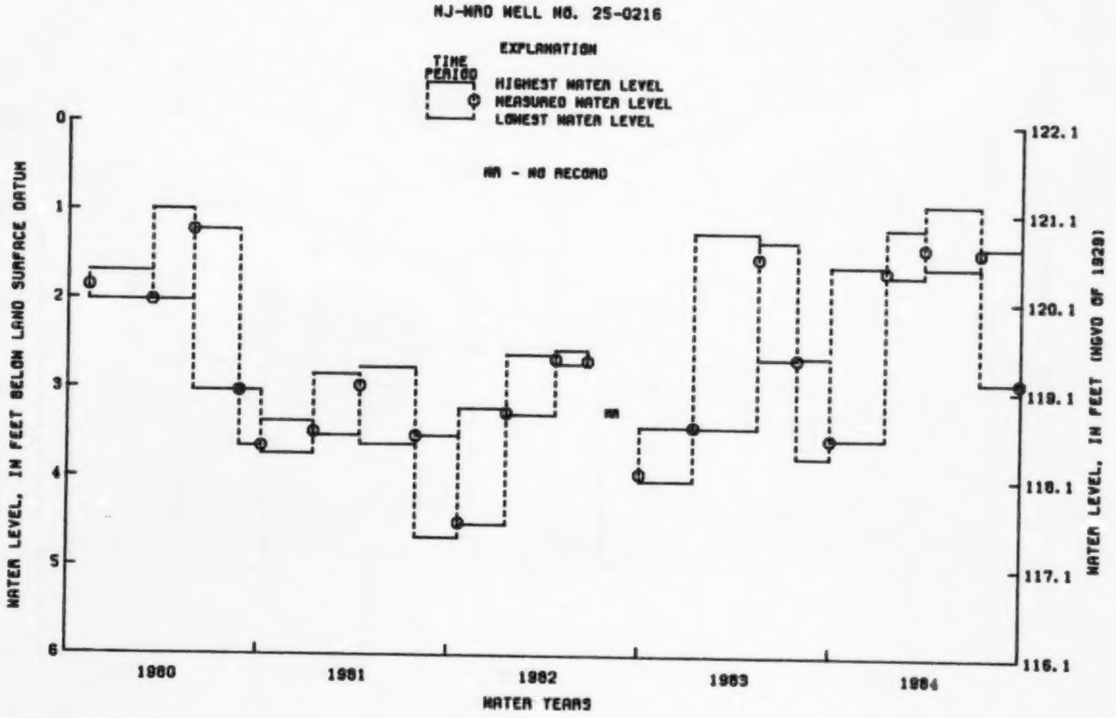
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 13, 1984	1.60	3.55
JAN. 13, 1984 TO MAR. 27, 1984	1.17	1.71
MAR. 27, 1984 TO JULY 12, 1984	0.90	1.61
JULY 12, 1984 TO SEPT. 27, 1984	1.38	2.90

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 13, 1984	1.66
MAR. 27, 1984	1.39
JULY 12, 1984	1.44
SEPT. 27, 1984	2.90



MONMOUTH COUNTY

401906074151401. Local I.D., Village 215 Obs. NJ-WRD Well Number, 25-0250.

LOCATION.--Lat 40°19'18", long 74°15'29", Hydrologic Unit 02030105, near intersection of River Drive and Newport Road, about 0.6 mi northwest of Route 79, in Marlboro.

Owner: Gordons Corner Water Company.

AQUIFER.--Englishtown aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 215 ft, screened 185 to 215 ft.

INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1971 to July 1975.

DATUM.--Land-surface datum is 138.62 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.58 ft above land-surface datum.

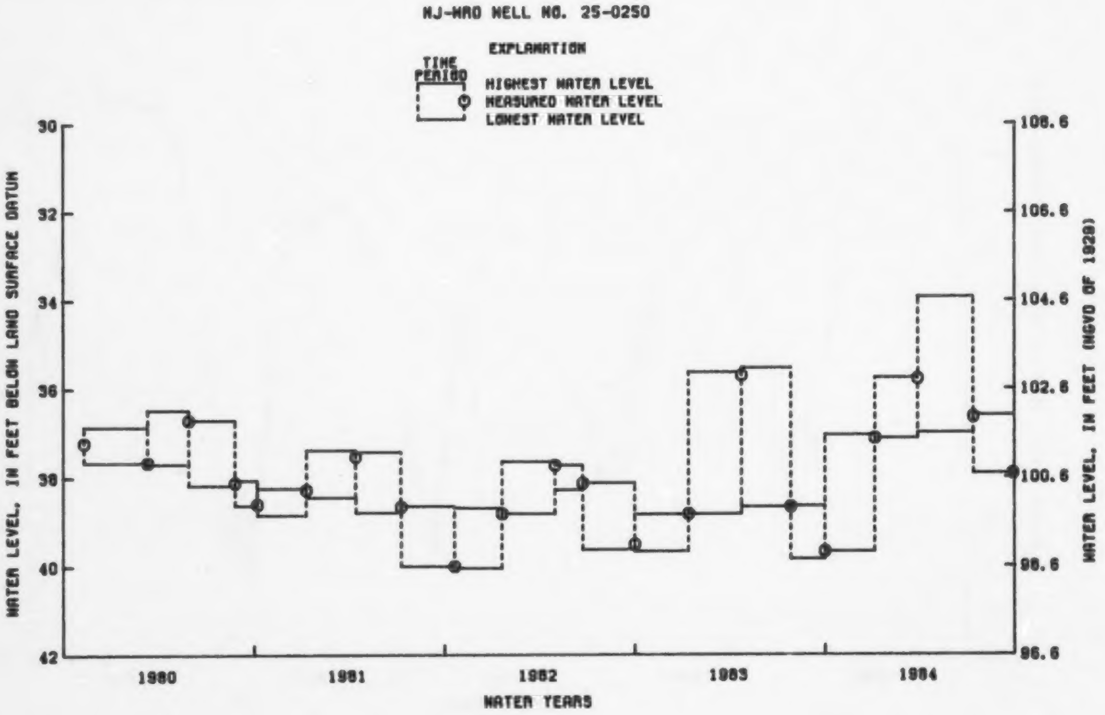
PERIOD OF RECORD.--April 1971 to July 1975, January 1977 to September 1984 (discontinued). Records for 1971 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.92 ft below land-surface datum, between Mar. 27 and July 12, 1984; lowest, 40.04 ft below land-surface datum, between Oct. 20 and Jan. 19, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 33.92 ft below land-surface datum, between Mar. 27 and July 12; lowest, 39.67 ft below land-surface datum, between Sept. 30, 1983 and Jan. 4, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 4, 1984	37.04	39.67	JAN. 4, 1984	37.12
JAN. 4, 1984 TO MAR. 27, 1984	35.75	37.12	MAR. 27, 1984	35.78
MAR. 27, 1984 TO JULY 12, 1984	33.92	36.99	JULY 12, 1984	36.64
JULY 12, 1984 TO SEPT. 27, 1984	36.59	37.91	SEPT. 27, 1984	37.91



MONMOUTH COUNTY

402208074145201. Local I.D., Marlboro 1 Obs. NJ-WRD Well Number, 25-0272.

LOCATION.--Lat 40°22'08", long 74°14'52", Hydrologic Unit 02030104, on the west side of New Jersey Route 79, 0.9 mi south of Morganville.
Owner: Marlboro Township Municipal Utilities Authority.

AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 680 ft, screened 670 to 680 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 116.93 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.50 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--January 1973 to July 1975, March 1977 to current year. Records for 1973 to 1977 are unpublished and are available in files of New Jersey District Office.

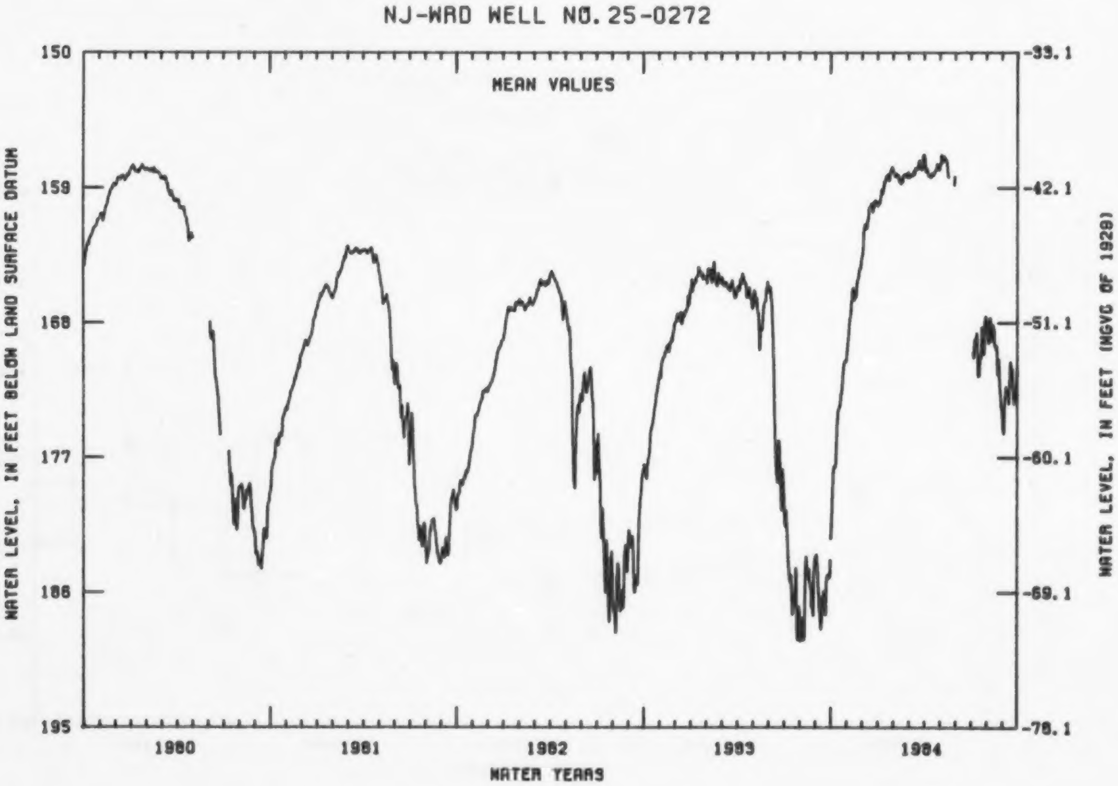
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 144.06 ft below land-surface datum, Apr. 4, 1973; lowest, 190.49 ft below land-surface datum, July 29, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 155.71 ft below land-surface datum, May 5; lowest, 182.94 ft below land-surface datum, Oct. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	178.44	168.09	161.50	159.63	158.03	158.25	157.72	156.94		170.00	169.37	172.95
10	177.44	166.41	161.52	159.12	158.47	158.16	158.17	156.95		169.11	168.93	172.67
15	173.78	166.48	160.28	158.45	158.27	157.79	158.00	157.42		171.58	168.45	171.39
20	172.68	165.34	160.07	158.25	158.09	157.50	157.99	---		170.39	169.50	171.09
25	171.04	164.31	159.81	157.83	158.05	157.69	157.39	---		169.74	171.15	172.76
EOM	170.22	163.51	160.20	157.95	157.94	156.78	157.81	---		167.63	174.11	171.45
MEAN	174.70	166.15	160.77	158.63	158.27	157.75	157.88	---		169.50	169.99	172.60

WTR YR 1984 MEAN 164.15 HIGH 156.78 MAR 30 AND OTHERS LOW 182.38 OCT 1



MONMOUTH COUNTY

402536073590501. Local I.D., Sandy Hook SP 1 Obs. NJ-WRD Well Number, 25-0316.

LOCATION.--Lat 40°25'36", long 73°59'05", Hydrologic Unit 02030104, about 1.9 mi north of the main entrance of Sandy Hook National Park, Middletown Township.
Owner: National Park Service.

AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 397 ft, screened 371 to 397 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to May 1978, November 1978 to current year. Water-level recorder, May 1965 to August 1975.

DATUM.--Land-surface datum is 10.91 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.20 ft above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

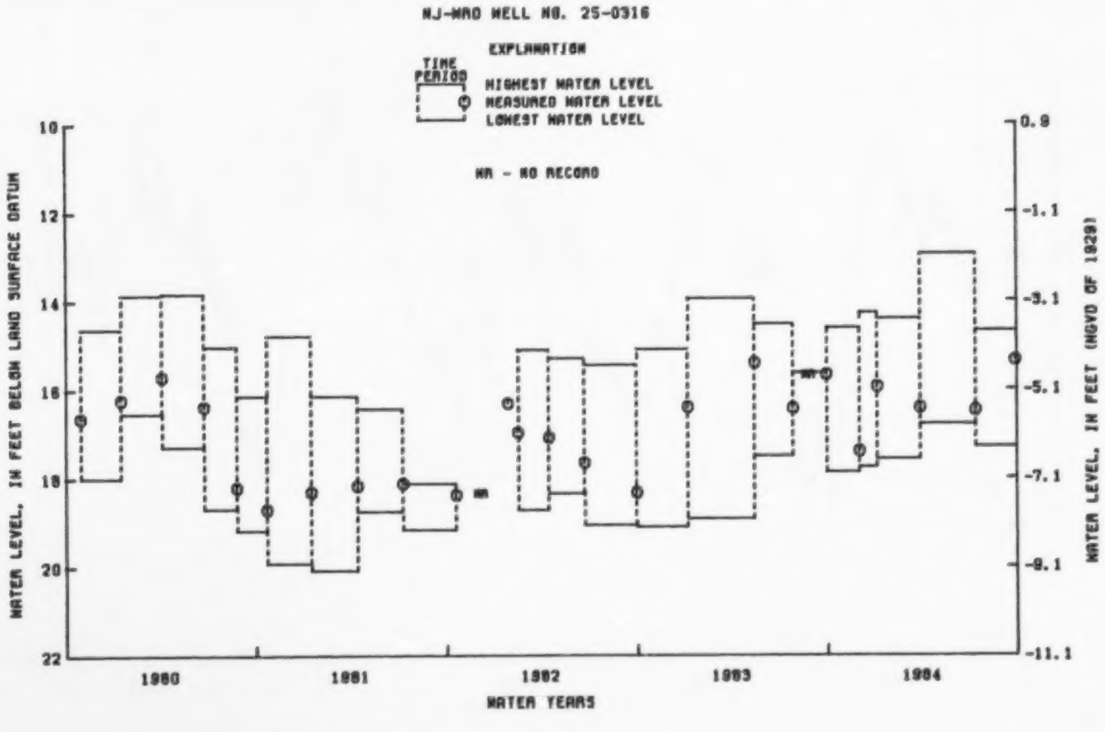
PERIOD OF RECORD.--May 1965 to August 1975, February 1977 to May 1978, November 1978 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.99 ft below land-surface datum, Jan. 23, 1966; lowest, 20.12 ft below land-surface datum, between Sept. 7 and Nov. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 12.95 ft below land-surface datum, between Mar. 27 and July 12; lowest, 17.87 ft below land-surface datum, between Sept. 29 and Dec. 1, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1983 TO DEC. 1, 1983	14.61	17.87	DEC. 1, 1983	17.40
DEC. 1, 1983 TO JAN. 4, 1984	14.27	17.76	JAN. 4, 1984	15.95
JAN. 4, 1984 TO MAR. 27, 1984	14.41	17.58	MAR. 27, 1984	16.42
MAR. 27, 1984 TO JULY 12, 1984	12.95	16.79	JULY 12, 1984	16.49
JULY 12, 1984 TO SEPT. 27, 1984	14.68	17.30	SEPT. 27, 1984	15.35



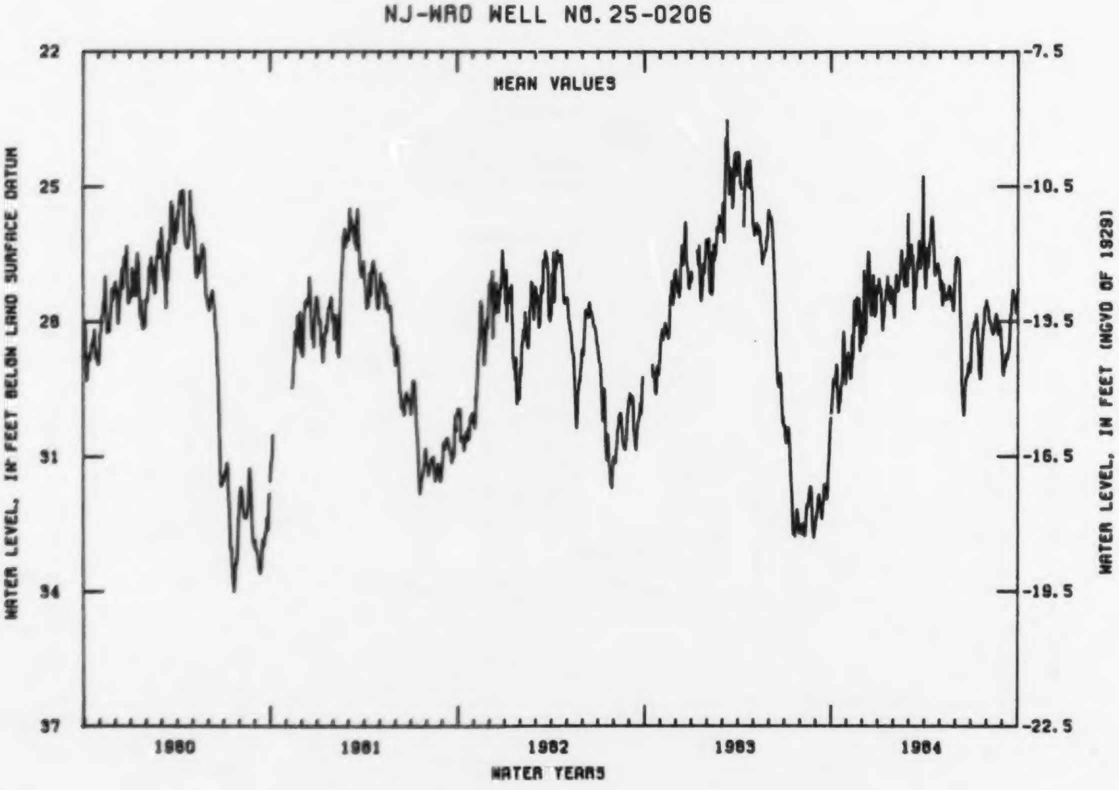
MONMOUTH COUNTY

402626074114204. Local I.D., Keyport Borough WD 4 Obs. NJ-WRD Well Number, 25-0206.
LOCATION.--Lat 40°26'25", long 74°11'45", Hydrologic Unit 02030104, at the unused Myrtle Avenue Water Plant, Keyport. Owner: Keyport Borough Water Department.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 249 ft, screened 225 to 249 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 14.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.66 ft below land-surface datum, Mar. 27, 1983; lowest, 34.88 ft below land-surface datum, July 22, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 23.41 ft below land-surface datum, Mar. 29; lowest, 31.21 ft below land-surface datum, June 17.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.27	28.76	27.19	27.28	26.96	26.29	26.37	27.48	26.65	28.17	27.94	29.01
10	29.18	28.53	27.46	28.03	27.03	26.96	26.39	27.52	27.79	27.96	28.20	28.79
15	30.04	27.54	27.01	27.51	26.42	27.24	25.67	27.46	29.79	28.55	28.18	28.05
20	29.45	27.47	27.60	27.38	27.06	26.62	26.61	27.23	29.38	29.19	27.88	27.30
25	28.23	28.01	27.90	27.24	26.67	26.53	26.90	27.52	29.04	28.09	28.07	27.47
EOM	29.07	28.37	27.36	27.74	26.62	26.43	26.85	26.90	28.93	27.53	28.77	27.27
MEAN	29.33	28.29	27.47	27.47	26.97	26.63	26.55	27.38	28.47	28.28	28.11	28.16

WTR YR 1984 MEAN 27.76 HIGH 24.77 MAR 29 LOW 30.10 JUN 17



MORRIS COUNTY

404639074230001. Local I.D., Briarwood School Obs. NJ-WRD Well Number, 27-0012.

LOCATION.--Lat 40°46'39", long 74°23'00", Hydrologic Unit 02030103, at Briarwood School near Florham Park. Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in, depth 110 ft, screened 100 to 110 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Altitude of land-surface datum is 198 ft, by altimeter. Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1967 to May 1975, April 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.

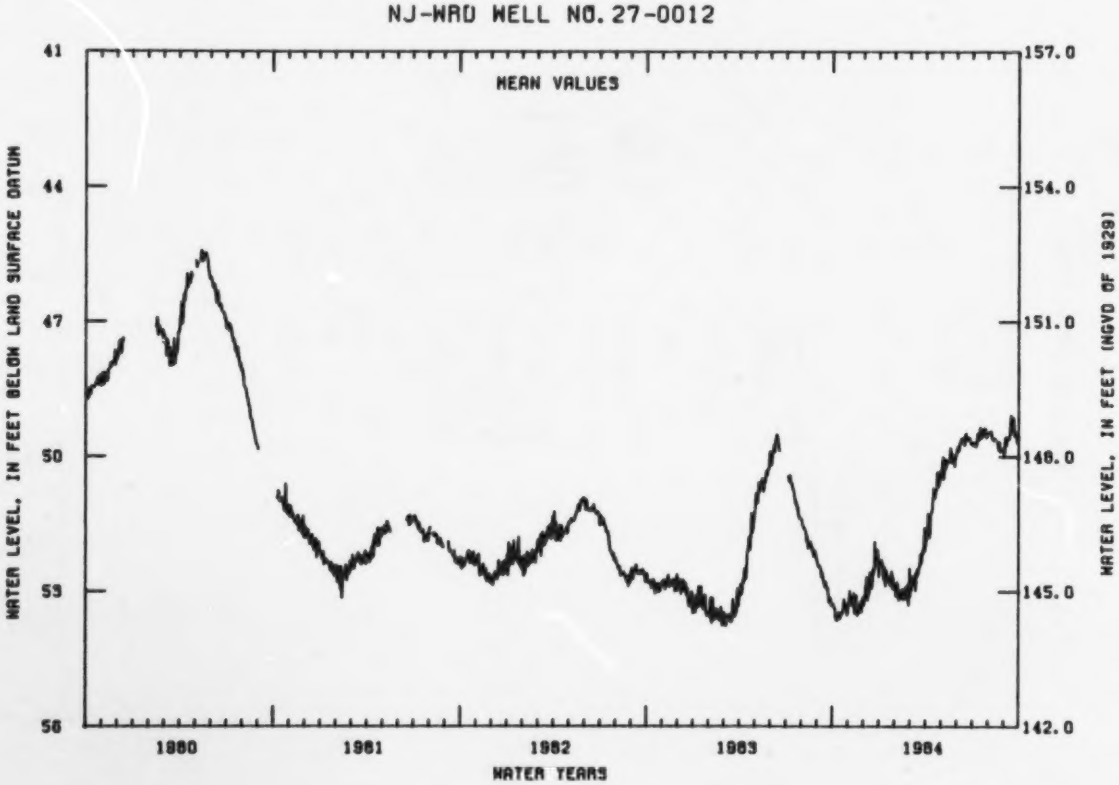
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.17 ft below land-surface datum, June 3, 1968; lowest, 53.81 ft below land-surface datum, Feb. 26, Mar. 3, and Mar. 5, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 48.99 ft below land-surface datum, Sept. 15; lowest, 53.69 ft below land-surface datum, Oct. 7.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.39	53.13	53.16	52.40	52.85	52.66	51.27	50.51	49.84	49.68	49.50	49.67
10	53.65	53.10	53.01	52.45	53.13	52.76	51.32	50.27	49.63	49.59	49.60	49.57
15	53.61	53.30	52.85	52.67	52.97	52.67	50.91	50.13	49.75	49.48	49.62	49.08
20	53.48	53.30	52.62	52.84	52.90	52.44	50.81	50.02	49.64	49.55	49.78	49.19
25	53.41	53.24	52.39	52.63	52.94	52.09	50.61	50.05	49.57	49.51	49.91	49.46
EOM	53.34	53.32	52.48	52.92	52.93	52.02	50.31	49.90	49.69	49.47	49.90	49.60
MEAN	53.45	53.28	52.69	52.66	53.02	52.51	51.06	50.13	49.67	49.57	49.67	49.52

WTR YR 1984 MEAN 51.43 HIGH 49.08 SEP 15 LOW 53.65 OCT 10



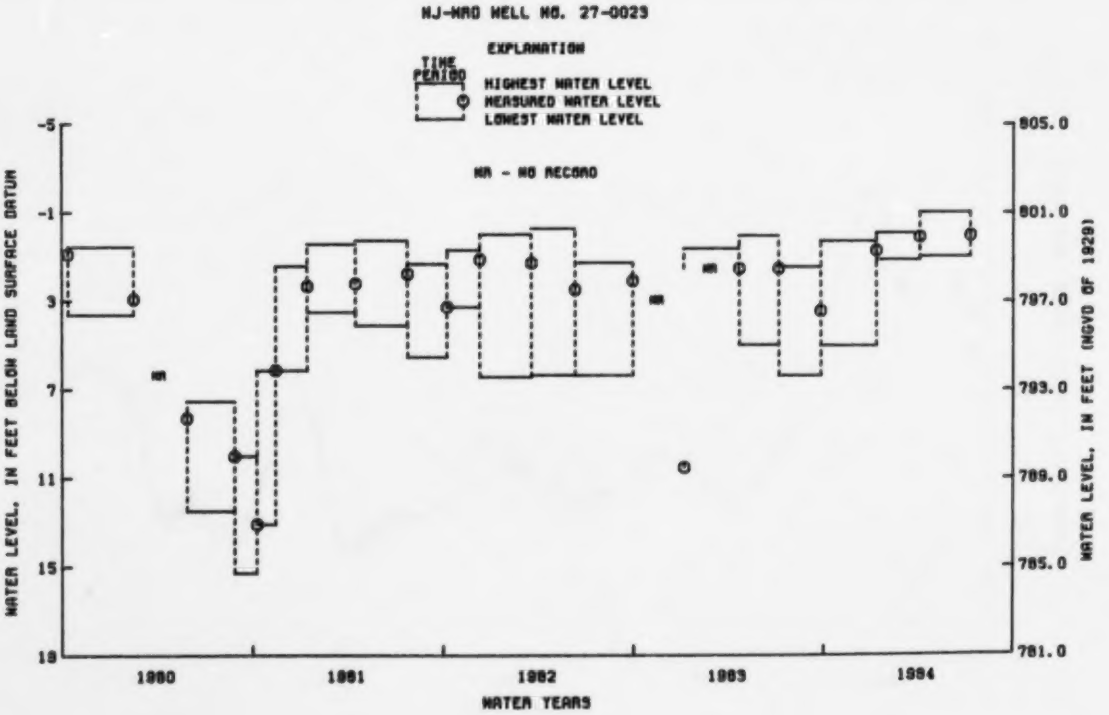
MORRIS COUNTY

404921074335601. Local I.D., Mount Freedom 2 Obs. NJ-WRD Well Number, 27-0023.
LOCATION.--Lat 40°49'21", long 74°33'56", Hydrologic Unit 02030103, 440 ft north of the intersection of Phyllis Place and Leonard Lane, Randolph Township.
Owner: Randolph Township Water Department.
AQUIFER.--Byram gneiss of Precambrian age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 8 in, cased to 11 ft, depth 218 ft, open hole.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, January 1964 to July 1970.
DATUM.--Altitude of land-surface datum is 800 ft, by altimeter.
Measuring point: Front edge of cutout in recorder housing, 4.79 ft above land-surface datum.
REMARKS.--Water level affected occasionally by nearby pumping.
PERIOD OF RECORD.--January 1964 to July 1970, April 1977 to July 1984 (discontinued). Periodic manual measurements, December 1970 to February 1975. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft above land-surface datum, between Apr. 3 and July 9, 1984; lowest, 15.29 ft below land-surface datum, between Aug. 26 and Oct. 8, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 1.02 ft above land-surface datum, between Apr. 3 and July 9; lowest, 5.03 ft below land-surface datum, between Sept. 25, 1983 and Jan. 10, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1983 TO JAN. 10, 1984	0.30	5.03	JAN. 10, 1984	0.73
JAN. 10, 1984 TO APR. 3, 1984	-0.08*	1.14	APR. 3, 1984	0.10
APR. 3, 1984 TO JULY 9, 1984	-1.02*	0.99	JULY 9, 1984	0.03

* Water level above land surface.



MORRIS COUNTY

404937074220001. Local I.D., Green Acres Obs. NJ-WRD Well Number, 27-0006.

LOCATION.--Lat 40°49'37", long 74°22'00", Hydrologic Unit 02030103, 65 ft northwest of the end of the paved portion of Weaver Place, East Hanover Township.

Owner: U.S. Geological Survey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in, depth 104 ft, screened 94 to 104 ft.

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, March 1967 to April 1975.

DATUM.--Altitude of land-surface datum is 181 ft, by altimeter.

Measuring point: Front edge of cutout in recorder housing, 4.16 ft above land-surface datum.

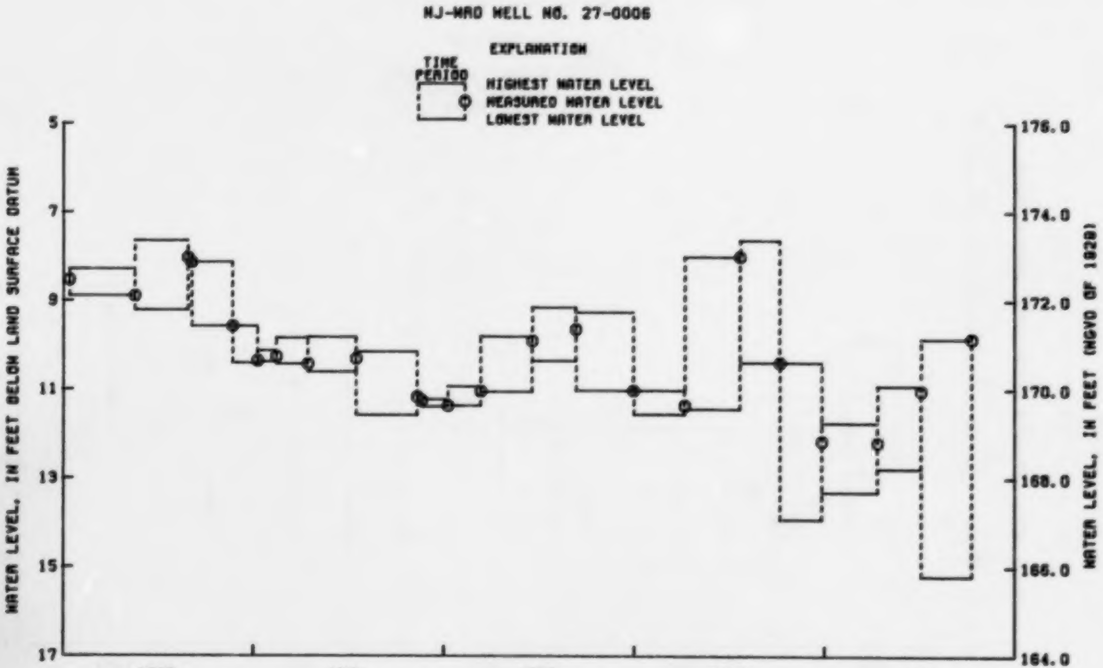
PERIOD OF RECORD.--March 1967 to April 1975, April 1977 to July 1984 (discontinued). Records for 1967 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.15 ft below land-surface datum, Apr. 10, 1973; lowest, 15.21 ft below land-surface datum, between Apr. 3 and July 9, 1984.

EXTREMES FOR CURRENT YEAR.--Highest water level, 9.86 ft below land-surface datum, between Apr. 3 and July 9; lowest, 15.21 ft below land-surface datum, between Apr. 3 and July 9.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1983 TO JAN. 10, 1984	11.75	13.32	JAN. 10, 1984	12.20
JAN. 10, 1984 TO APR. 3, 1984	10.92	12.79	APR. 3, 1984	11.03
APR. 3, 1984 TO JULY 9, 1984	9.86	15.21	JULY 9, 1984	9.86



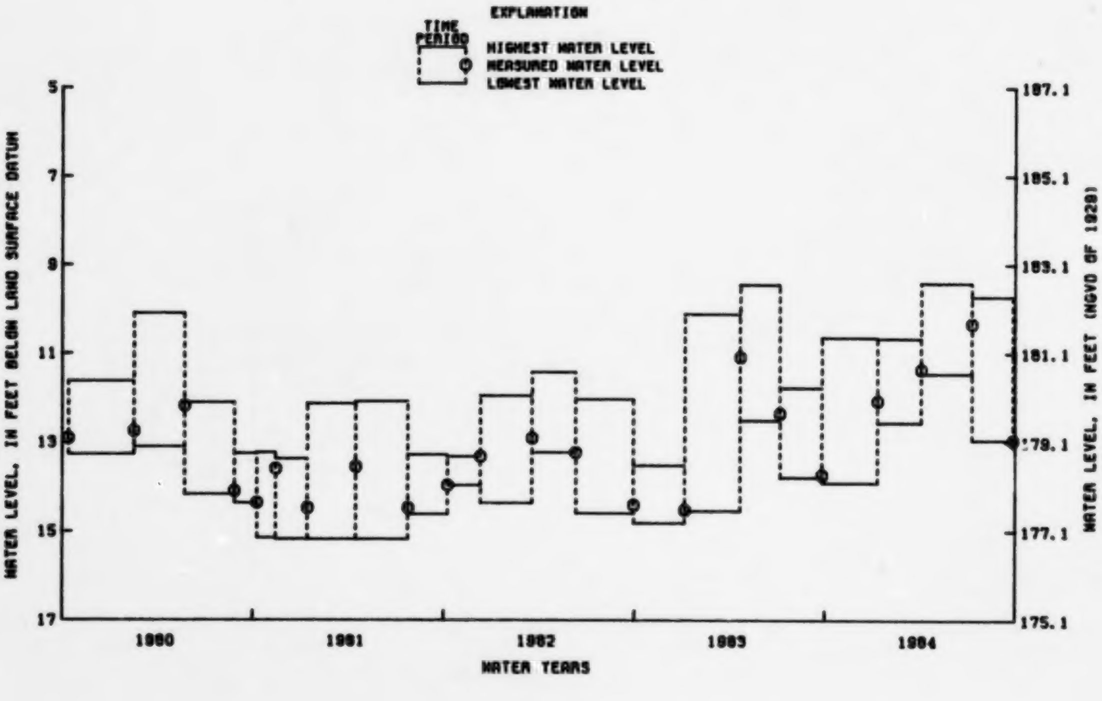
MORRIS COUNTY

405027074232301. Local I.D., Troy Meadows 1 Obs. NJ-WRD Well Number, 27-0020.
LOCATION.--Lat 40°50'27", long 74°23'23", Hydrologic Unit 02030103, on the east side of Beverwyck Road, 0.8 mi north of intersection with Troy Road, Parsippany-Troy Hills Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in, depth 89 ft, screened 79 to 89 ft.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1965 to July 1970.
DATUM.--Land-surface datum is 192.07 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.32 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to July 1970, April 1977 to current year. Periodic manual measurements, December 1970 to February 1975. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.00 ft below land-surface datum, Mar. 15-16, 1967 and June 15, 1968; lowest, 15.77 ft below land-surface datum, between Feb. 10 and May 31, 1978.
EXTREMES FOR CURRENT YEAR.--Highest water level, 9.42 ft below land-surface datum, between Apr. 3 and July 9; lowest, 13.92 ft below land-surface datum, between Sept. 25, 1983 and Jan. 10, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1983 TO JAN. 10, 1984	10.65	13.92	JAN. 10, 1984	12.08
JAN. 10, 1984 TO APR. 3, 1984	10.67	12.57	APR. 3, 1984	11.37
APR. 3, 1984 TO JULY 9, 1984	9.42	11.47	JULY 9, 1984	10.34
JULY 9, 1984 TO SEPT. 26, 1984	9.73	12.96	SEPT. 26, 1984	12.96

NJ-WRD WELL NO. 27-0020



MORRIS COUNTY

410207074270001. Local I.D., Green Pond TW5 Obs. NJ-WRD Well Number, 27-0028.

LOCATION.--Lat 41°02'07", long 74°27'00", Hydrologic Unit 02030103, about 500 ft east of Route 513 and 1.1 mi south of intersection with Route 23, Rockaway Township.

Owner: State of New Jersey.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 6 in, depth 120 ft, screened 80 to 120 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 758.56 ft above National Geodetic Vertical Datum of 1929 (levels by Woodward-Clyde Consultants).

Measuring point: Top edge of recorder shelf, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--November 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.35 ft below land-surface datum, Apr. 5, 1984; lowest, 6.43 ft below land-surface datum, Sept. 20-21, 1983.

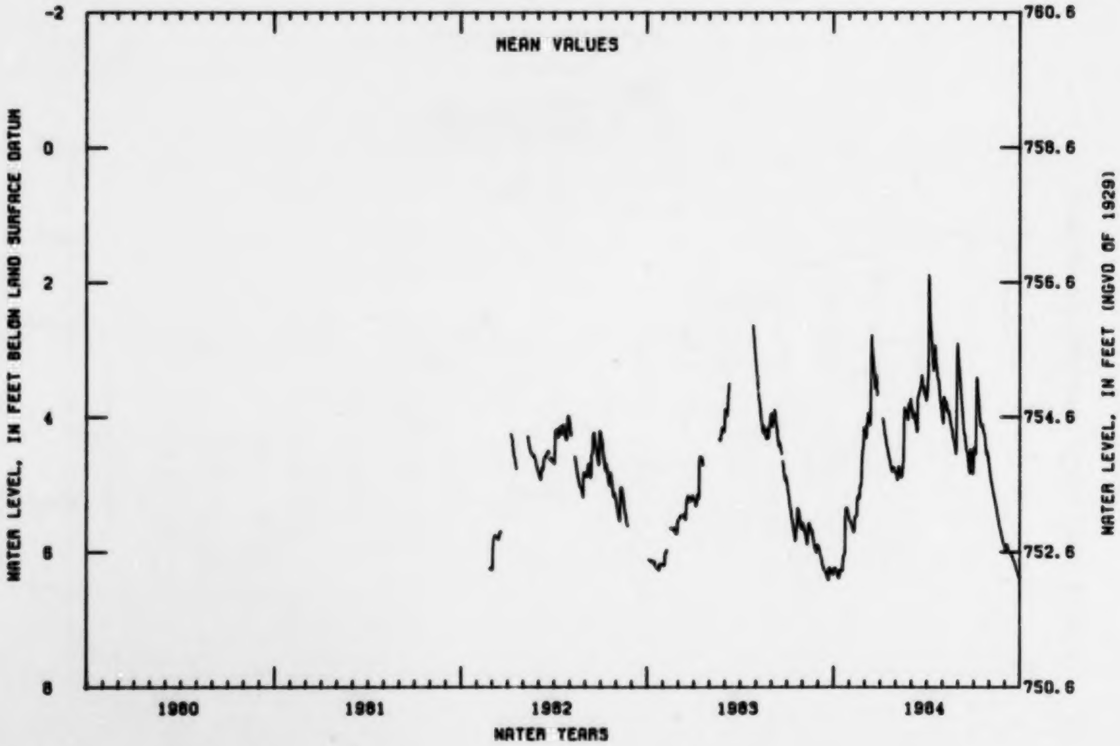
EXTREMES FOR CURRENT YEAR.--Highest water level, 1.35 ft below land-surface datum, Apr. 5; lowest, 6.39 ft below land-surface datum, Oct. 11.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.25	5.60	4.12	4.03	4.73	4.00	1.89	3.73	3.48	4.56	4.97	5.89
10	6.37	5.69	4.06	4.29	4.90	4.10	2.82	3.85	4.00	3.71	5.17	6.02
15	6.26	5.46	2.96	4.51	4.14	3.69	3.26	3.98	4.35	4.14	5.36	6.07
20	6.06	5.21	3.46	4.71	3.92	3.56	3.26	4.20	4.60	4.20	5.57	6.16
25	5.36	4.68	3.67	4.74	3.80	3.54	3.57	4.42	4.48	4.48	5.75	6.29
EOM	5.50	4.16	---	4.85	3.73	3.76	3.92	2.91	4.85	4.68	5.92	6.37
MEAN	6.03	5.20	3.68	4.55	4.35	3.77	3.21	4.01	4.21	4.21	5.39	6.12

WTR YR 1984 MEAN 4.58 HIGH 1.89 APR 5 LOW 6.39 OCT 11

NJ-WRD WELL NO. 27-0028



OCEAN COUNTY

394829074053503. Local I.D., Island Beach 3 Obs. NJ-WRD Well Number, 29-0019.

LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi south of main entrance, Berkeley Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 2,756 ft, screened 2,736 to 2,756 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, November 1968 to March 1975.

DATUM.--Land-surface datum is 9.02 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 5.11 ft above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

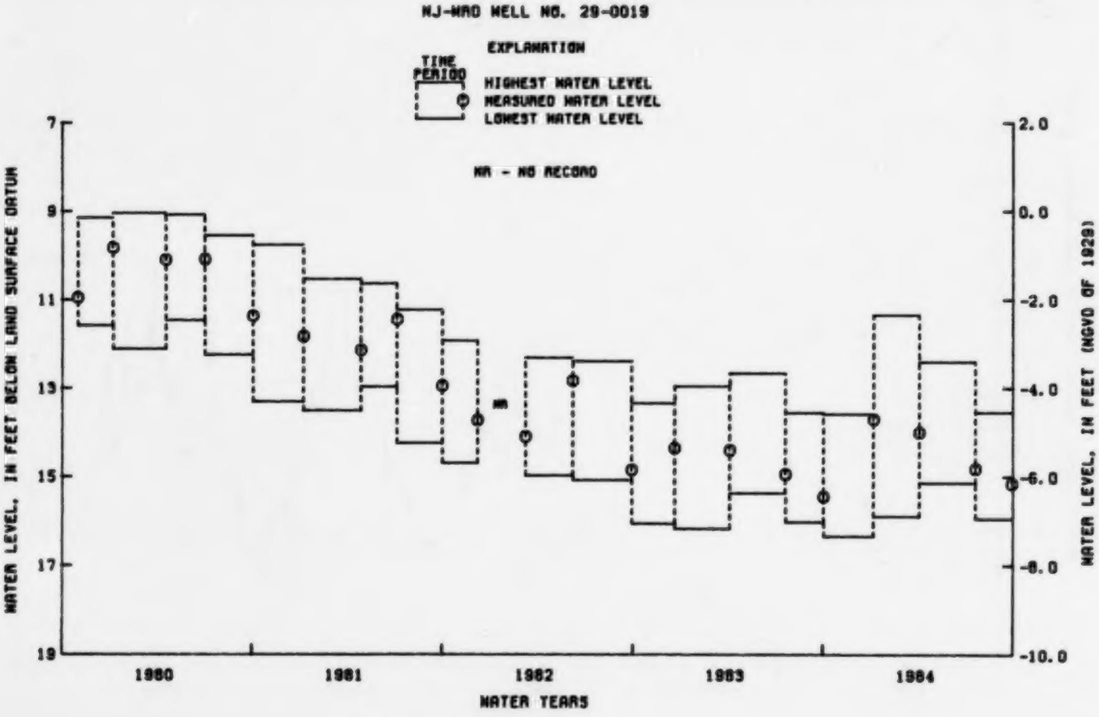
PERIOD OF RECORD.--November 1968 to March 1975, February 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.95 ft above land-surface datum, Apr. 23, 1969; lowest, 16.35 ft below land-surface datum, between Oct. 2, 1983 and Jan. 6, 1984.

EXTREMES FOR CURRENT YEAR.--Highest water level, 11.35 ft below land-surface datum, between Jan. 6 and Apr. 3; lowest, 16.35 ft below land-surface datum, between Oct. 2, 1983 and Jan. 6, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 2, 1983 TO JAN. 6, 1984	13.59	16.35	JAN. 6, 1984	13.71
JAN. 6, 1984 TO APR. 3, 1984	11.35	15.90	APR. 3, 1984	14.00
APR. 3, 1984 TO JULY 20, 1984	12.40	15.14	JULY 20, 1984	14.82
JULY 20, 1984 TO SEPT. 28, 1984	13.54	15.94	SEPT. 28, 1984	15.15

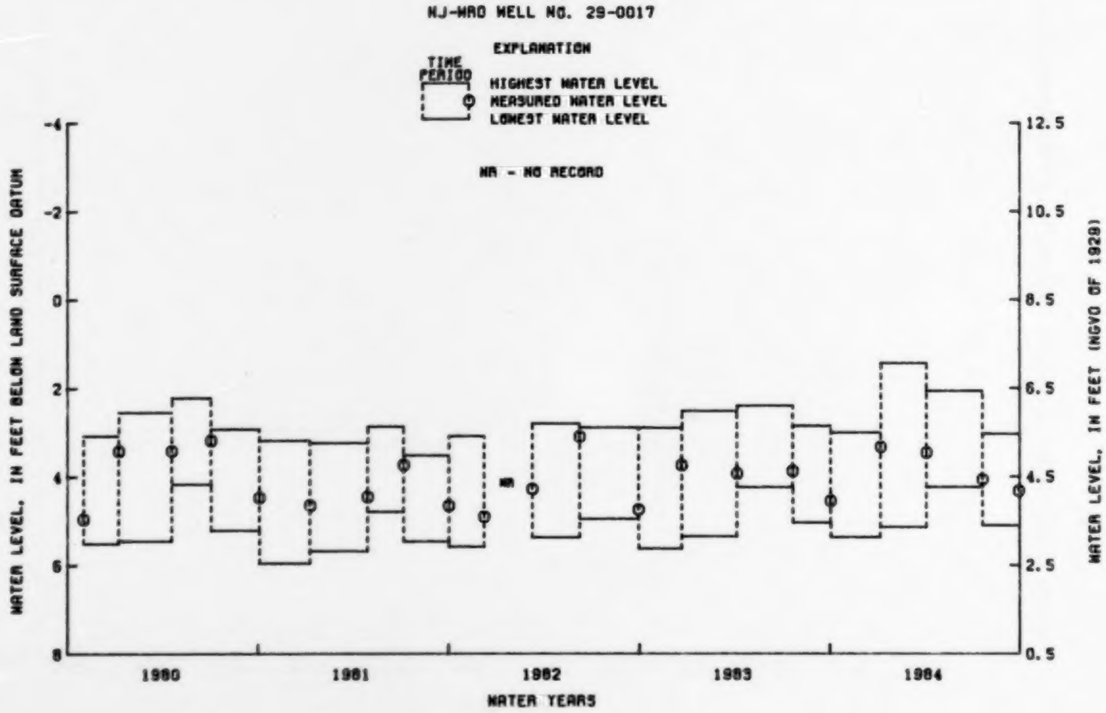


OCEAN COUNTY

394829074053501. Local I.D., Island Beach 1 Obs. NJ-WRD Well Number, 29-0017.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi south of main entrance, Berkeley Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 397 ft, screened 377 to 397 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, July 1962 to March 1975.
DATUM.--Land-surface datum is 8.50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--July 1962 to March 1975, February 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft below land-surface datum, Dec. 6, 1962; lowest, 6.14 ft below land-surface datum, between Dec. 13, 1978 and Jan. 10, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 1.44 ft below land-surface datum, between Jan. 6 and Apr. 3; lowest, 5.38 ft below land-surface datum, between Oct. 2, 1983 and Jan. 6, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 2, 1983 TO JAN. 6, 1984	3.01	5.38	JAN. 6, 1984	3.34
JAN. 6, 1984 TO APR. 3, 1984	1.44	5.15	APR. 3, 1984	3.47
APR. 3, 1984 TO JULY 20, 1984	2.07	4.25	JULY 20, 1984	4.08
JULY 20, 1984 TO SEPT. 28, 1984	3.04	5.11	SEPT. 28, 1984	4.33



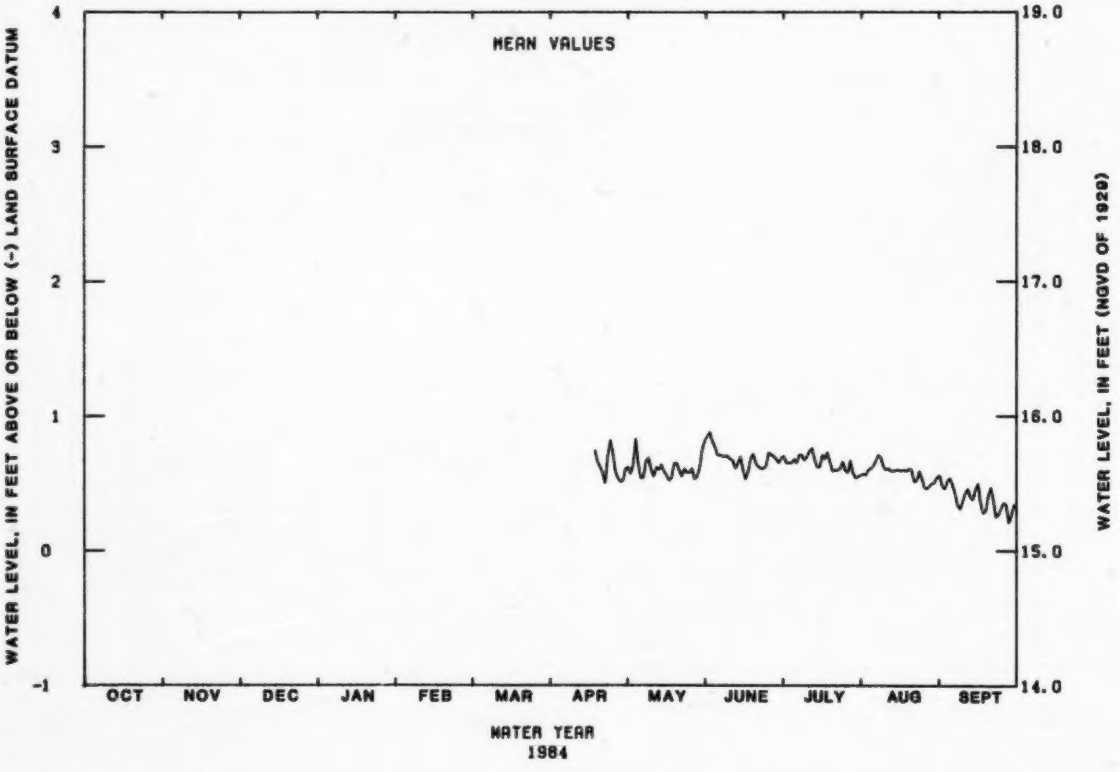
OCEAN COUNTY

395028074104401. Local I.D., DOE-Forked River Obs. NJ-WRD Well Number, 29-0585.
LOCATION.--Lat 39°50'28", long 74°10'44", Hydrologic Unit 02040301, at the Forked River Game Farm, Forked River.
Owner: State of New Jersey.
AQUIFER.--Piney Point aquifer of Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 959 ft, perforated casing 412 to 422 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Altitude of land-surface datum is 15 ft, from topographic map.
Measuring point: Top edge of recorder shelf, 3.80 ft above land-surface datum.
PERIOD OF RECORD.--Current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft above land-surface datum, June 1, 1984; lowest, 0.22 ft above land-surface datum, Sept. 27, 1984.

WATER LEVEL, IN FEET ABOVE LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5							---	.64	.71	.68	.63	.49
10							---	.60	.68	.70	.60	.43
15							---	.59	.60	.62	.60	.50
20							.62	.65	.65	.59	.60	.47
25							.73	.58	.73	.60	.47	.36
EOM							.61	.82	.69	.56	.56	.34
MEAN							---	.61	.69	.65	.58	.38

NJ-WRD WELL NO. 29-0585



OCEAN COUNTY

395714074223401. Local I.D., Crammer Obs. NJ-WRD Well Number, 29-0486.

LOCATION.--Lat 39°57'14", long 74°22'34", Hydrologic Unit 02040301, about 800 ft east of Central Railroad of New Jersey, Whiting.

Owner: Whiting Bible Church.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Water-table observation well, diameter 8 in, depth 69 ft, slotted steel casing, gravel packed.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 179.05 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 8-inch coupling, 0.90 ft above land-surface datum.

REMARKS.--Originally a dug well in which casing was inserted on March 31, 1966, and the well deepened from 60 to 69 ft.

PERIOD OF RECORD.--May 1952 to current year.

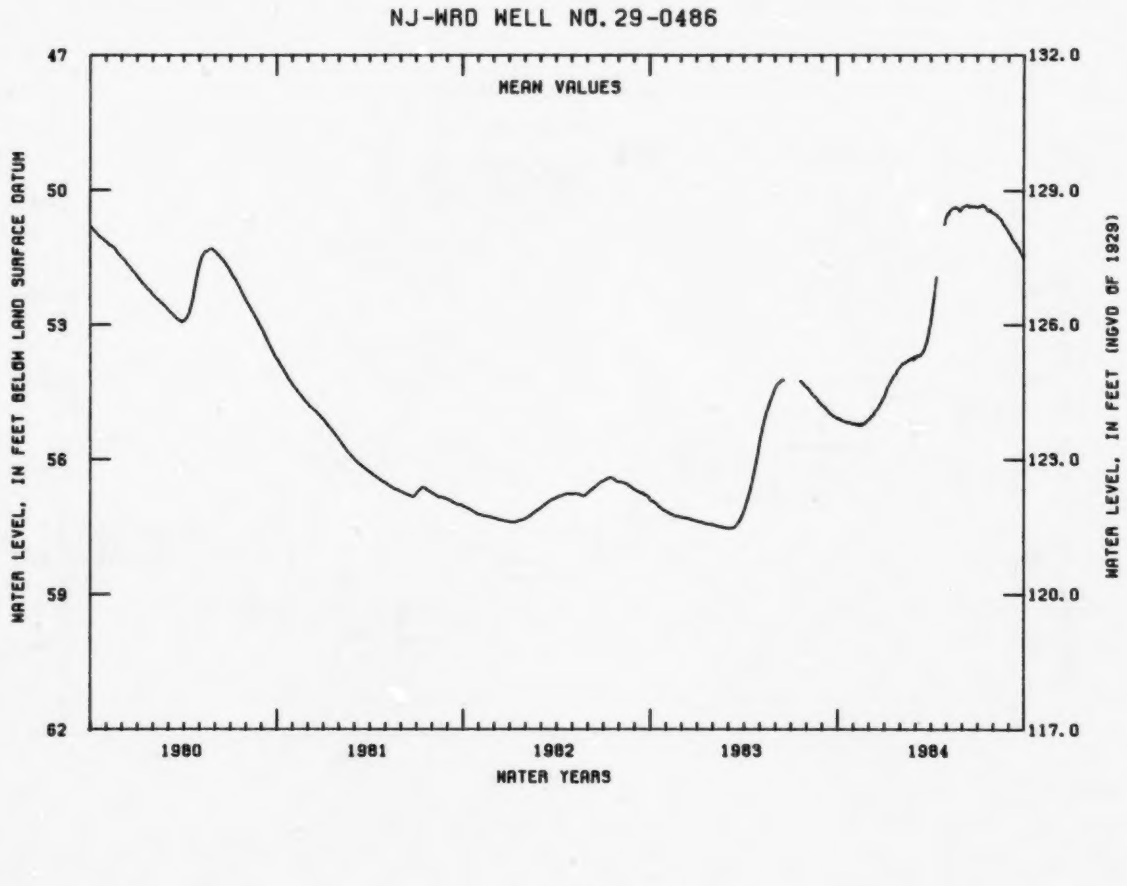
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.80 ft below land-surface datum, June 9-14, 20-29, 1973; lowest, 57.58 ft below land surface datum, June 1, 1966; well was dry, November 1957 to February 1958, and December 1965, before deepening.

EXTREMES FOR CURRENT YEAR.--Highest water level, 50.30 ft below land-surface datum, July 11-12; lowest, 55.25 ft below land-surface datum, Nov. 12-13.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	55.09	55.20	55.06	54.43	53.85	53.69	52.58	50.52	50.36	50.34	50.52	51.00
10	55.14	55.22	55.01	54.31	53.84	53.69	52.12	50.44	50.32	50.34	50.57	51.12
15	55.16	55.23	54.90	54.21	53.79	53.63	---	50.39	50.34	50.35	50.62	51.18
20	55.18	55.21	54.84	54.12	53.75	53.51	---	50.36	50.34	50.42	50.71	51.27
25	55.18	55.15	54.72	54.01	53.73	53.33	---	50.40	50.34	50.41	50.79	51.40
EOM	55.22	55.11	54.60	53.91	53.72	52.98	50.64	50.42	50.37	50.49	50.90	51.53
MEAN	55.15	55.20	54.88	54.21	53.80	53.51	---	50.44	50.35	50.38	50.66	51.21

WTR YR 1984 MEAN 52.68 HIGH 50.30 JUL 12 LOW 55.25 NOV 13

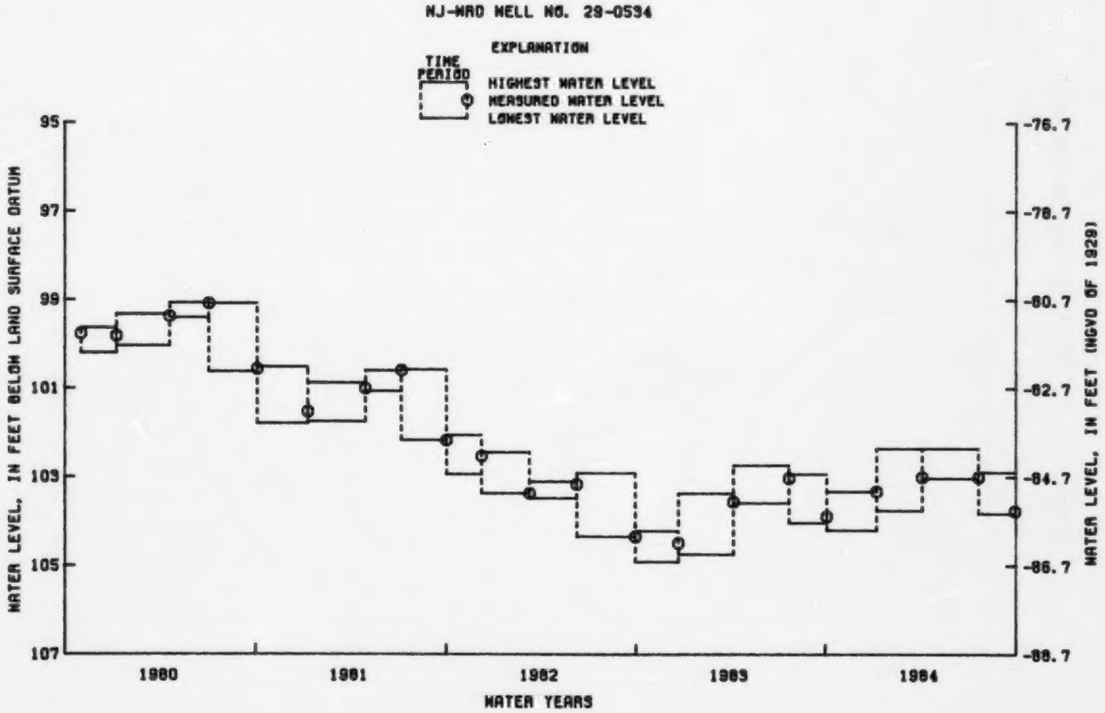


OCEAN COUNTY

395609074124001. Local I.D., Toms River TW 2 Obs. NJ-WRD Well Number, 29-0534.
LOCATION.--Lat 39°56'09", long 74°12'40", Hydrologic Unit 02040301, about 200 ft east of Double Trouble Road on the north side of Jakes Branch, South Toms River.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 1,146 ft, screened 1,080 to 1,146 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, December 1965 to March 1975.
DATUM.--Land-surface datum is 18.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.70 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to March 1975, February 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.37 ft below land-surface datum, May 28, 1966; lowest, 104.91 ft below land-surface datum, between Sept. 29 and Dec. 21, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 102.35 ft below land-surface datum, between Jan. 6 and Apr. 3 and between Apr. 3 and July 20; lowest, 104.20 ft below land-surface datum, between Oct. 2, 1983 and Jan. 6, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 2, 1983 TO JAN. 6, 1984	103.32	104.20	JAN. 6, 1984	103.32
JAN. 6, 1984 TO APR. 3, 1984	102.35	103.75	APR. 3, 1984	103.00
APR. 3, 1984 TO JULY 20, 1984	102.35	103.03	JULY 20, 1984	103.00
JULY 20, 1984 TO SEPT. 28, 1984	102.89	103.82	SEPT. 28, 1984	103.76



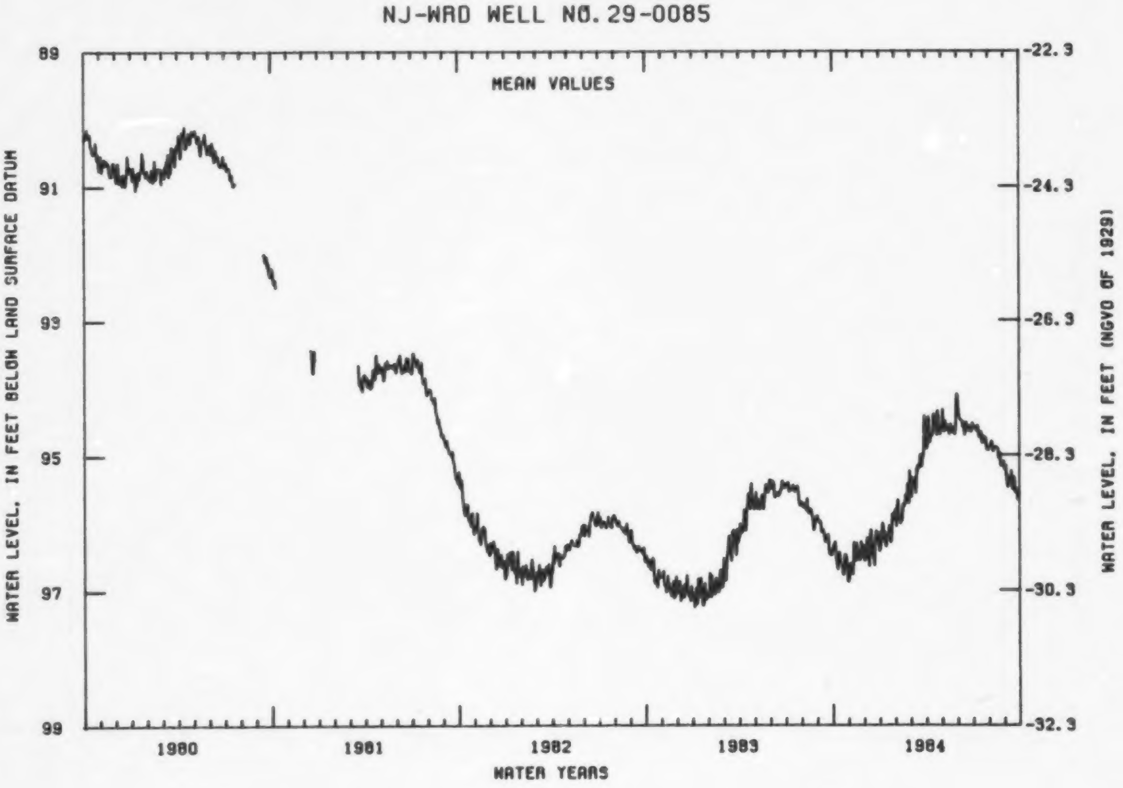
OCEAN COUNTY

395930074142101. Local I.D., Toms River Chem 84 Obs. NJ-WRD Well Number, 29-0085.
LOCATION.--Lat 39°59'29", long 74°14'20", Hydrologic Unit 02040301, at Toms River Plant, Ciba-Geigy Corporation, Dover Township.
Owner: Ciba-Geigy Corporation.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 1,480 ft, screened 1,460 to 1,480 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 66.71 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.70 ft above land-surface datum.
PERIOD OF RECORD.--July 1968 to July 1975, March 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.32 ft below land-surface datum, July 19, 1968 and Feb. 9, 1969; lowest, 97.30 ft below land-surface datum, Jan. 4, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 94.08 ft below land-surface datum, May 31 and June 1; lowest, 96.91 ft below land-surface datum, Nov. 1.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	96.28	96.61	96.42	96.09	95.66	95.50	94.49	94.52	94.44	94.58	94.86	95.25
10	96.67	96.59	96.55	96.18	96.02	95.48	94.73	94.58	94.50	94.63	94.94	95.36
15	96.55	96.56	96.16	96.23	95.72	95.26	94.57	94.60	94.60	94.74	94.88	95.23
20	96.73	96.53	96.55	96.18	95.59	95.13	94.60	94.54	94.58	94.83	94.93	95.32
25	96.54	96.28	96.16	95.87	95.42	95.09	94.42	94.65	94.56	94.78	95.11	95.50
EOM	96.87	96.46	96.43	95.80	95.23	94.65	94.59	94.17	94.61	94.92	95.09	95.59
MEAN	96.56	96.54	96.37	96.13	95.75	95.20	94.62	94.57	94.52	94.70	94.96	95.41

WTR YR 1984 MEAN 95.44 HIGH 94.09 JUN 1 LOW 96.88 NOV 1

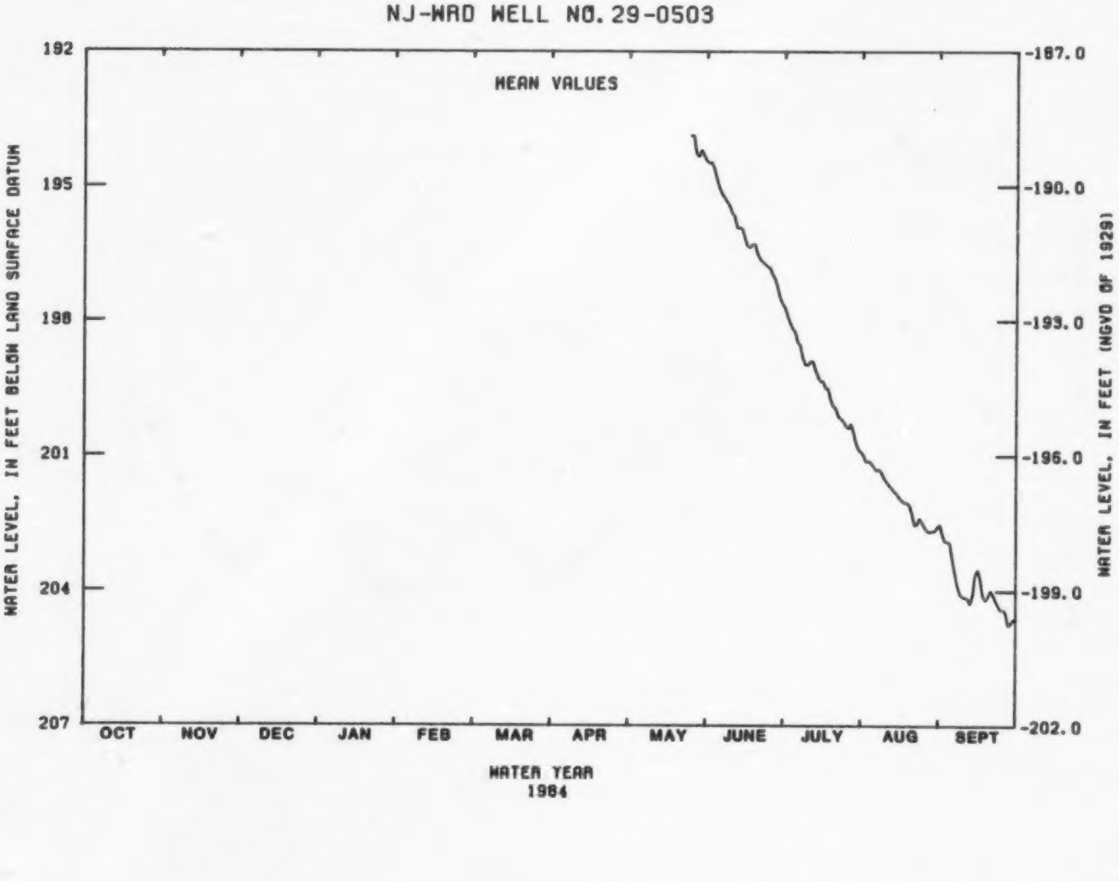


OCEAN COUNTY

400210074031001. Local I.D., Mantoloking 6 Obs. NJ-WRD Well Number, 29-0503.
LOCATION.--Lat 40°02'10", long 74°03'10", Hydrologic Unit 02040301, at the Bay Avenue water treatment plant, Mantoloking.
Owner: New Jersey Water Company.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 906 ft, screened 845 to 906 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Altitude of land-surface datum is 5 ft, from topographic map.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--Current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 193.50 ft below land-surface datum, May 26, 1984; lowest, 205.15 ft below land-surface datum, Sept. 27-28, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5								---	195.03	198.24	201.23	203.29
10								---	195.59	198.97	201.56	204.13
15								---	196.15	199.33	201.91	203.51
20								---	196.50	199.89	202.26	203.97
25								193.87	196.81	200.32	202.57	204.39
EOM								194.43	197.62	200.90	202.50	204.60
MEAN								---	196.05	199.40	201.93	203.96



OCEAN COUNTY

400416074270101. Local I.D., Colliers Mills TW 1 Obs. NJ-WRD Well Number, 29-0138.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Englishtown aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 427 ft, screened 417 to 427 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 136.52 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 6 inch coupling, 2.20 ft above land-surface datum.

PERIOD OF RECORD.--February 1964 to July 1975, March 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.02 ft below land-surface datum, Feb. 19, 1964; lowest, 74.10 ft below land-surface datum, Oct. 24, 1982.

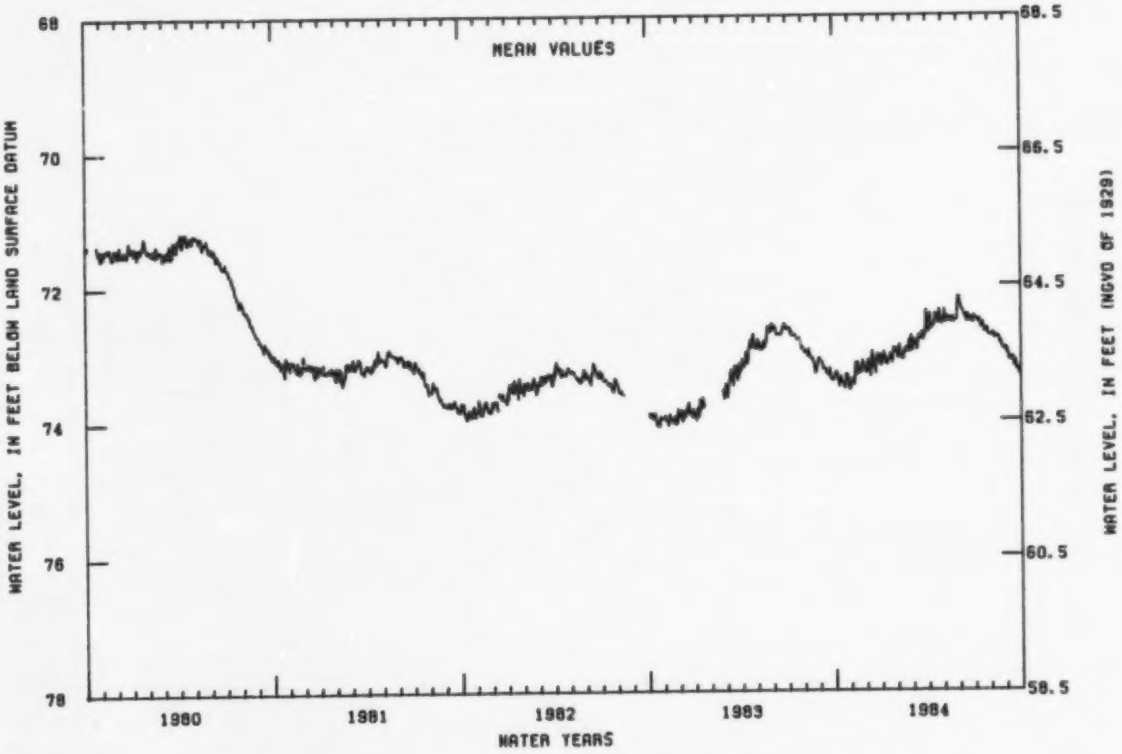
EXTREMES FOR CURRENT YEAR.--Highest water level, 72.16 ft below land-surface datum, June 2; lowest, 73.58 ft below land-surface datum, Oct. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.28	73.39	73.21	73.04	72.89	72.90	72.43	72.48	72.34	72.52	72.75	73.01
10	73.49	73.35	73.31	73.11	73.11	72.90	72.61	72.51	72.42	72.55	72.80	73.08
15	73.42	73.32	73.05	73.13	72.95	72.81	72.54	72.51	72.51	72.64	72.76	73.07
20	73.52	73.30	73.28	73.09	72.92	72.78	72.50	72.48	72.49	72.70	72.82	73.12
25	73.36	73.12	73.08	72.93	72.83	72.77	72.43	72.54	72.49	72.70	72.93	73.23
EOM	73.55	73.26	73.20	72.95	72.75	72.60	72.53	72.18	72.51	72.75	72.93	73.29
MEAN	73.41	73.31	73.18	73.07	72.98	72.79	72.55	72.49	72.44	72.61	72.82	73.15

WTR YR 1984 MEAN 72.90 HIGH 72.18 MAY 31 AND OTHERS LOW 73.55 OCT 30 AND OTHERS

NJ-WRD WELL NO. 29-0138



OCEAN COUNTY

400416074270103. Local I.D., Colliers Mills TW 3 Obs. NJ-WRD Well Number, 29-0140.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 270 ft, screened 257 to 267 ft.

INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, January 1964 to July 1975.

DATUM.--Land-surface datum is 135.15 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.49 ft above land-surface datum.

PERIOD OF RECORD.--January 1964 to July 1975, October 1976 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.

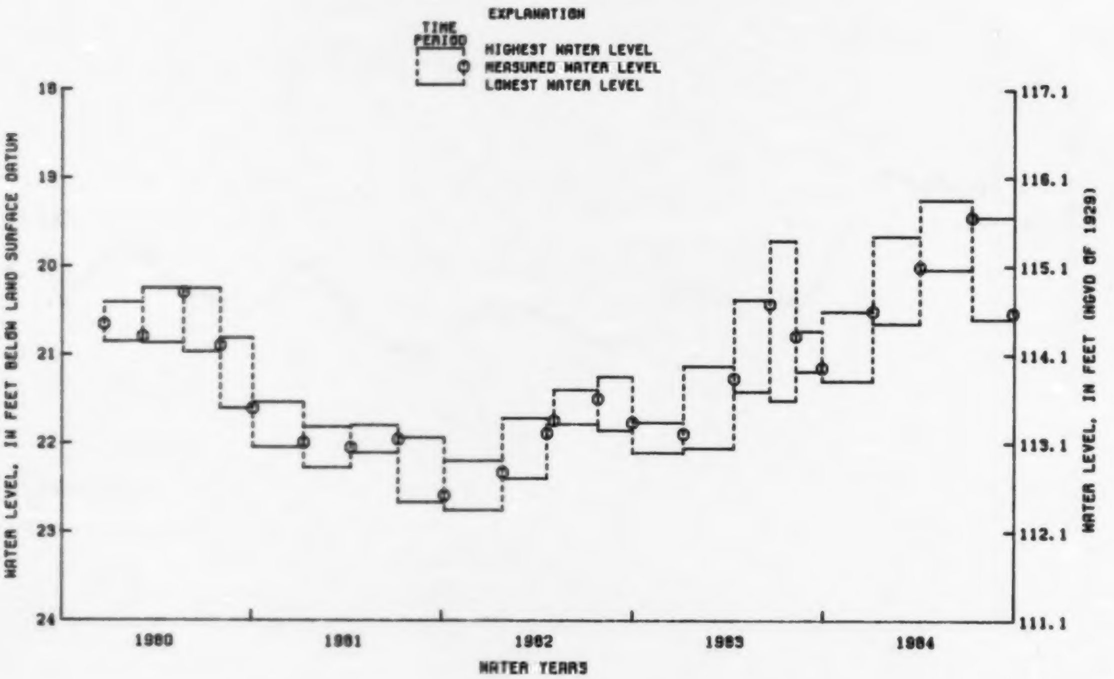
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.72 ft below land-surface datum, May 9, 1964; lowest, 22.76 ft below land-surface datum, between Oct. 6, 1981 and Jan. 26, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 19.25 ft below land-surface datum, between Apr. 3 and July 11; lowest, 21.30 ft below land-surface datum, between Sept. 29, 1983 and Jan. 4, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1983 TO JAN. 4, 1984	20.51	21.30	JAN. 4, 1984	20.51
JAN. 4, 1984 TO APR. 3, 1984	19.66	20.65	APR. 3, 1984	20.01
APR. 3, 1984 TO JULY 11, 1984	19.25	20.04	JULY 11, 1984	19.45
JULY 11, 1984 TO SEPT. 28, 1984	19.45	20.60	SEPT. 28, 1984	20.53

NJ-WRD WELL NO. 29-0140



OCEAN COUNTY

400416074270102. Local I.D., Colliers Mills TW 2 Obs. NJ-WRD Well Number, 29-0139.

LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.

Owner: U.S. Geological Survey.

AQUIFER.--Vincentown Formation of Paleocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 171 ft, screened 161 to 171 ft.

INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, January 1964 to August 1975.

DATUM.--Land-surface datum is 135.76 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.10 ft above land-surface datum.

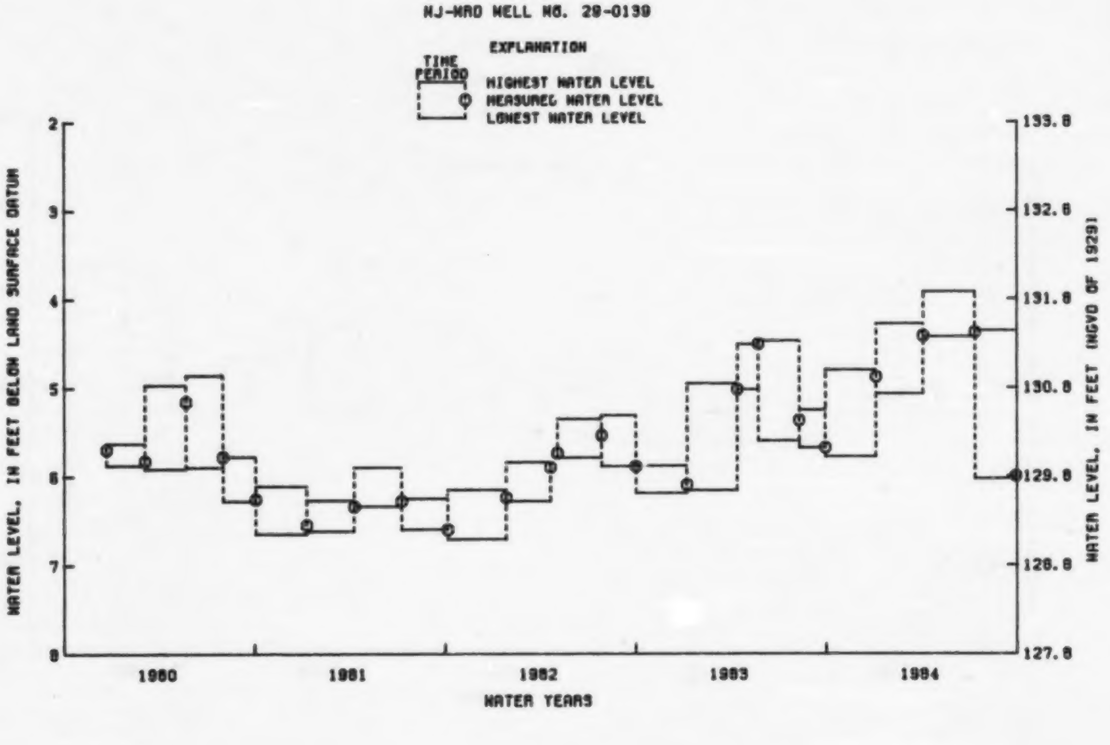
PERIOD OF RECORD.--January 1964 to August 1975, October 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.92 ft below land-surface datum, between Apr. 3 and July 11, 1984; lowest, 6.71 ft below land-surface datum, between Oct. 6, 1981 and Jan. 26, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.92 ft below land-surface datum, between Apr. 3 and July 11; lowest, 6.03 ft below land-surface datum, between July 11 and Sept. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 29, 1983 TO JAN. 4, 1984	4.80	5.78	JAN. 4, 1984	4.88
JAN. 4, 1984 TO APR. 3, 1984	4.28	5.07	APR. 3, 1984	4.42
APR. 3, 1984 TO JULY 11, 1984	3.92	4.43	JULY 11, 1984	4.38
JULY 11, 1984 TO SEPT. 28, 1984	4.36	6.03	SEPT. 28, 1984	6.00



OCEAN COUNTY

400416074270104. Local I.D., Colliers Mills TW 4 Obs. NJ-WRD Well Number, 29-0141.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 71 ft, gravel-filled hole 46 to 71 ft.
INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, March 1964 to April 1975.
DATUM.--Land-surface datum is 135.31 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.86 ft above land-surface datum.
REMARKS.--Water level affected by stage of Colliers Mills Pond. Water-quality records for 1984 are published elsewhere in this report.
PERIOD OF RECORD.--March 1964 to April 1975, October 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.68 ft below land-surface datum, between Apr. 3 and July 11, 1984; lowest, 6.75 ft below land-surface datum, between July 11 and September 28, 1984.
EXTREMES FOR CURRENT YEAR.--Highest water level, 3.68 ft below land-surface datum, between Apr. 3 and July 11; lowest, 6.75 ft below land-surface datum, between July 11 and Sept. 28.

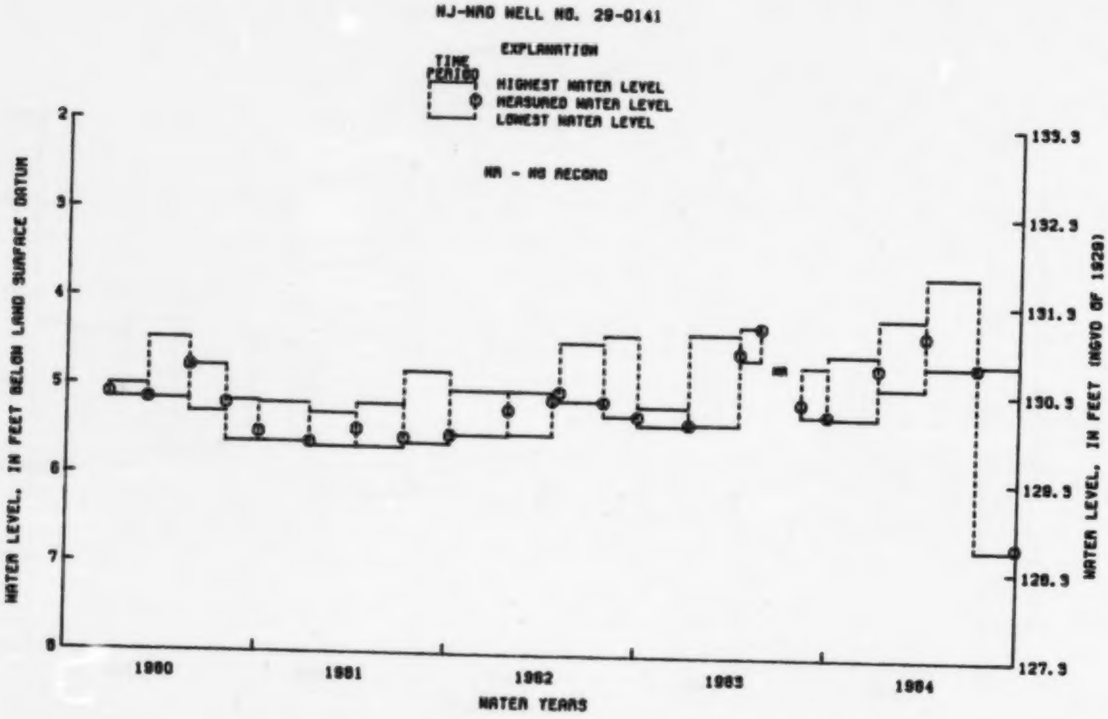
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1983 TO JAN. 4, 1984	4.57	5.28
JAN. 4, 1984 TO APR. 3, 1984	4.16	4.94
APR. 3, 1984 TO JULY 11, 1984	3.68	4.69
JULY 11, 1984 TO SEPT. 28, 1984	4.66	6.75

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 4, 1984	4.72
APR. 3, 1984	4.35
JULY 11, 1984	4.69
SEPT. 28, 1984	6.71

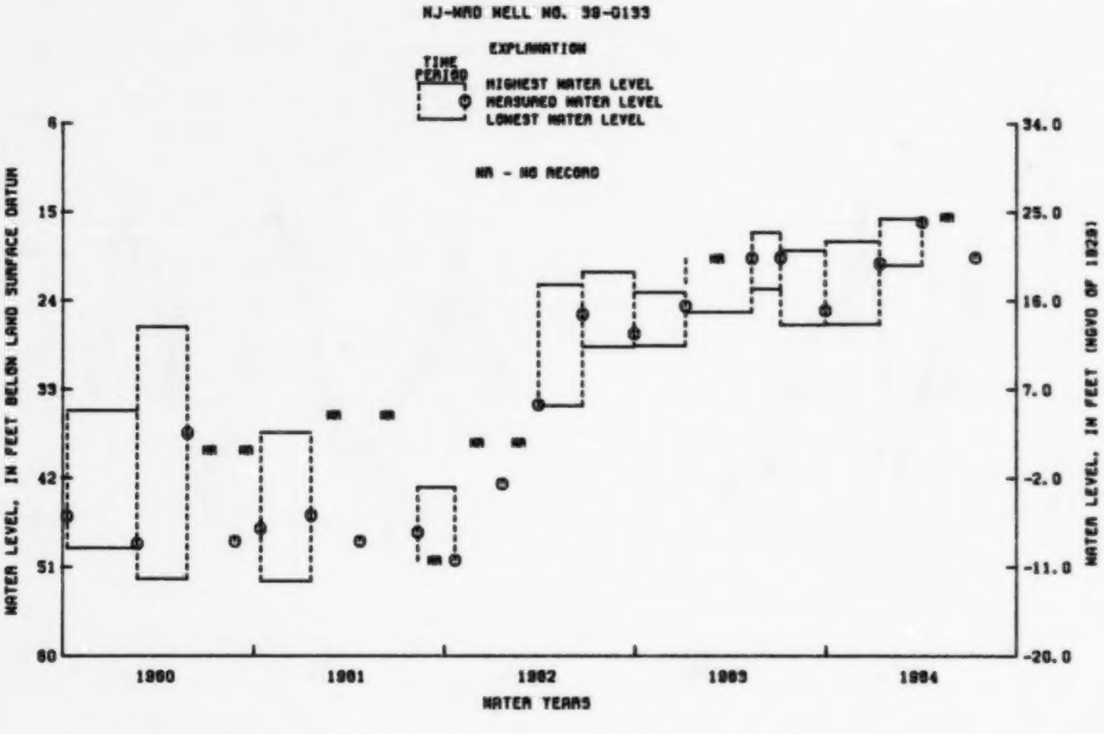


UNION COUNTY

403726074162401. Local I.D., Hatfield 2 Obs. NJ-WRD Well Number, 39-0133.
LOCATION.--Lat 40°37'26", long 74°16'23", Hydrologic Unit 02030104, at the Hatfield Wire and Cable Company plant, near the intersection of North Stiles Street and Fuller Road, Linden.
Owner: Hatfield Wire and Cable Company.
AQUIFER.--Brunswick Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, cased to 32 ft, depth 223 ft, open hole.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, January 1967 to August 1975.
DATUM.--Land-surface datum is 40.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.47 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--January 1967 to August 1975, April 1977 to July 1984 (discontinued). Records for 1967 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.65 ft below land-surface datum, between Jan. 12 and Apr. 2, 1984; lowest, 52.44 ft below land-surface datum, between Oct. 14, 1980 and Jan. 19, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.65 ft below land-surface datum, between Jan. 12 and Apr. 2; lowest, 26.38 ft below land-surface datum, between Sept. 30, 1983 and Jan. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 12, 1984	17.95	26.38	JAN. 12, 1984	20.23
JAN. 12, 1984 TO APR. 2, 1984	15.65	20.39	APR. 2, 1984	16.01
APR. 2, 1984 TO JULY 13, 1984	---	---	JULY 13, 1984	19.62



UNION COUNTY

404027074164401. Local I.D., White Lab. 3 Obs. NJ-WRD Well Number, 39-0102.

LOCATION.--Lat 40°40'27", long 74°16'44", Hydrologic Unit 02030104, at north end of South 31st Street, Kenilworth. Owner: Schering Corporation.

AQUIFER.--Brunswick Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, cased to 49 ft, depth 251 ft, open hole.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 85.22 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelf at land-surface datum.

REMARKS.--Land-surface datum prior to February 1974, 4.20 ft lower. Water level affected by nearby pumping.

PERIOD OF RECORD.--September 1952 to July 1984 (discontinued). Records for March to August 1952, published in WSP 1265, are unreliable and should not be used.

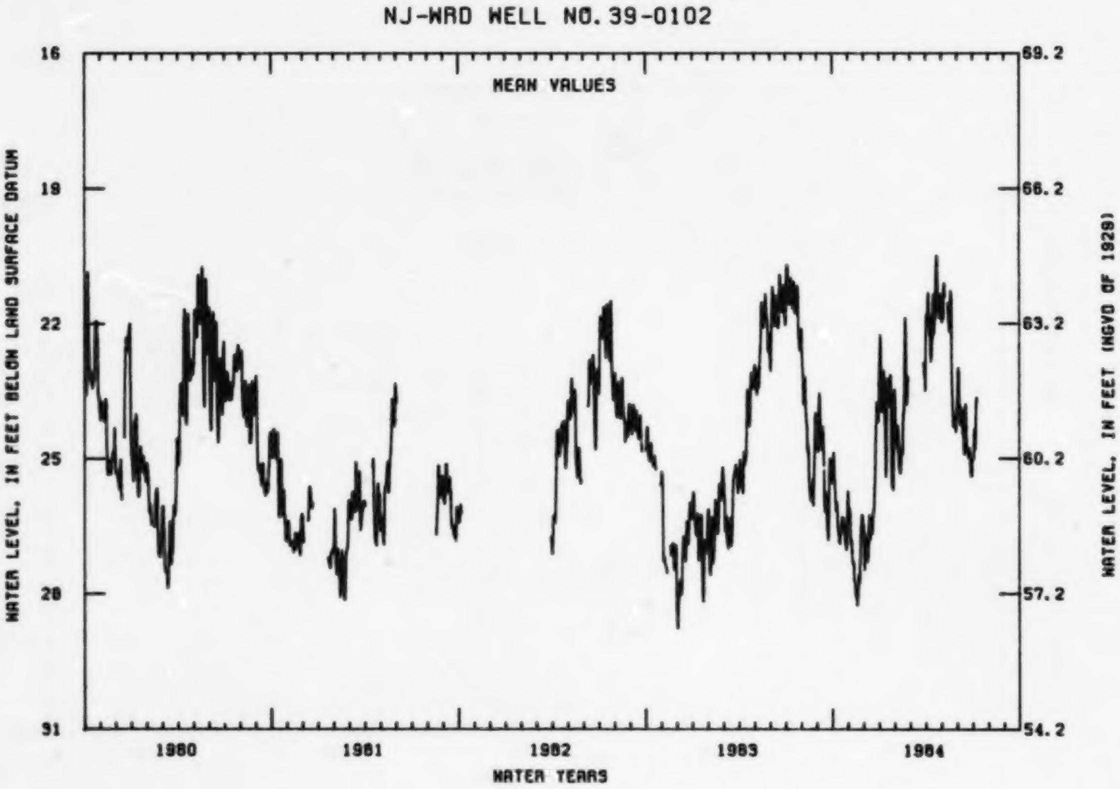
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.51 ft below land-surface datum, Apr. 17, 1961; lowest, 30.70 ft below land-surface datum, Oct. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 20.21 ft below land-surface datum, Apr. 23; lowest, 28.36 ft below land-surface datum, Nov. 18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.52	26.90	26.98	23.96	24.27	---	21.44	21.90	23.49	24.35		
10	26.10	27.36	26.91	23.45	25.33	---	22.45	---	23.88	23.74		
15	26.90	28.08	26.34	23.57	24.49	---	21.71	21.74	24.91	---		
20	26.30	27.68	26.17	23.84	21.88	---	21.53	21.27	24.84	---		
25	26.78	26.62	24.24	25.61	23.18	---	21.57	24.30	24.77	---		
EOM	25.72	26.48	23.17	24.00	---	23.50	21.34	23.97	25.39	---		
MEAN	26.26	27.16	25.95	23.90	24.27	---	21.77	22.60	24.39	---		

WTR YR 1984 MEAN 24.56 HIGH 20.50 APR 23 LOW 28.27 NOV 18



UNION COUNTY

404106074171901. Local I.D., Union County Park Obs. NJ-WRD Well Number, 39-0119.

LOCATION.--Lat 40°41'06", long 74°17'19", Hydrologic Unit 02030104, at Galloping Hill Golf Course, Kenilworth. Owner: Union County Park Commission.

AQUIFER.--Brunswick Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, length of casing unknown, depth 290 ft, open hole.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 69.00 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.

REMARKS.--Water levels occasionally affected by nearby pumping.

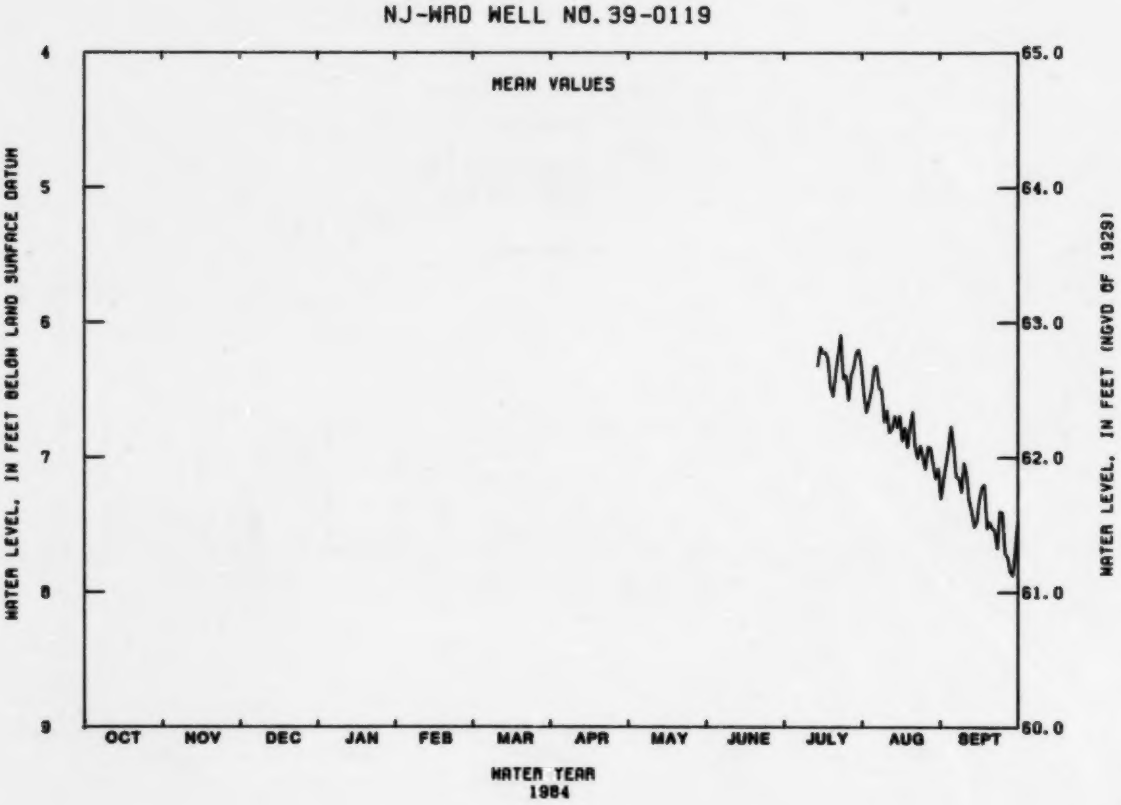
PERIOD OF RECORD.--June 1943 to May 1975, July 1984 to September 1984. Periodic manual measurements, August 1976 to April 1984. Records for 1975 to 1983 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land-surface datum, June 2, 1952; lowest, 16.05 ft below land-surface datum, June 29, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 5.28 ft below land-surface datum, Apr. 2; lowest, 8.34 ft below land-surface datum, Sept. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5										---	6.34	6.93
10										---	6.65	7.13
15										6.18	6.69	7.32
20										6.55	6.66	7.53
25										6.39	7.09	7.72
EOM										6.31	7.31	7.47
MEAN										---	6.79	7.37



UNION COUNTY

404111074121701. Local I.D., Schweitzer Obs. NJ-WRD Well Number, 39-0058.

LOCATION.--Lat 40°41'13", long 74°12'16", Hydrologic Unit 02030104, on the east side of Newark Avenue, about 0.5 mi north of the intersection with North Avenue, Elizabeth.

Owner: Magruder Color Company.

AQUIFER.--Brunswick Formation of Triassic age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 10 in, length of casing unknown, depth 660 ft, open hole.

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, April 1956 to July 1970.

DATUM.--Land-surface datum is 28.23 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.45 ft below land-surface datum.

REMARKS.--Water level affected by nearby pumping.

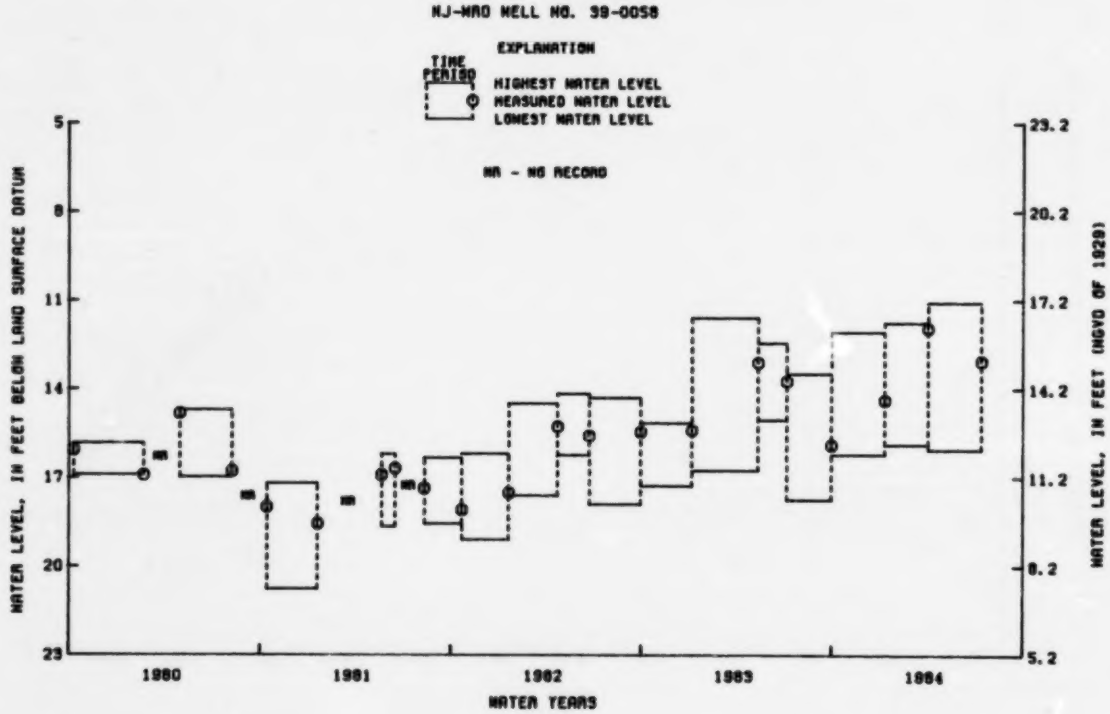
PERIOD OF RECORD.--April 1956 to July 1970, April 1977 to July 1984 (discontinued). Periodic manual measurements, December 1970 to March 1977. Records for 1956 to 1982 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.07 ft below land-surface datum, between Apr. 2 and July 13, 1984; lowest, 26.83 ft below land-surface datum, Oct. 31, 1963.

EXTREMES FOR CURRENT YEAR.--Highest water level, 11.07 ft below land-surface datum, between Apr. 2 and July 13; lowest, 16.23 ft below land-surface datum, between Sept. 30, 1983 and Jan. 10, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1983 TO JAN. 10, 1984	12.07	16.23	JAN. 10, 1984	14.38
JAN. 10, 1984 TO APR. 2, 1984	11.75	15.89	APR. 2, 1984	11.95
APR. 2, 1984 TO JULY 13, 1984	11.07	16.06	JULY 13, 1984	13.06



WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

ATLANTIC COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNIT)
01-0387	RAMSBERG-AMATOL 8 OBS	39 35 57	074 41 14	57	136*	121CKKD	84-06-21	12.5	22	5.5
01-0542	USGS-WHARTON TRCT 2G OBS	39 40 36	074 40 01	19	66- 76	121CKKD	84-06-21	12.0	122	6.8

LOCAL IDENTIFIER	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
RAMSBERG-AMATOL 8 OBS	4	.85	.34	1.7	.30	6	--	7	1.5	4.0
USGS-WHARTON TRCT 2G OBS	2	.22	.30	1.4	.20	73	--	66	65	10

LOCAL IDENTIFIER	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
RAMSBERG-AMATOL 8 OBS	<.10	6.2	18	<.010	<.10	.010	.80	--	<.010	30
USGS-WHARTON TRCT 2G OBS	<.10	5.6	73	<.010	<.10	.190	.50	--	<.010	<10

LOCAL IDENTIFIER	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
RAMSBERG-AMATOL 8 OBS	<1	<1	<1	4	490	3	5	<.1
USGS-WHARTON TRCT 2G OBS	1	2	<1	1	36000	4	5	<.1

LOCAL IDENTIFIER	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
RAMSBERG-AMATOL 8 OBS	55	1.6	<1
USGS-WHARTON TRCT 2G OBS	6	3.4	<1

* Total depth of well

Aquifer unit:
121CKKD - Kirkwood-Cohansey aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

ATLANTIC COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
01-0121	SEAVIEW HARBOR WC	1958 WELL	391852	743206	5	740 - 780	122KRKDL
01-0367	LONGPORT W D	LONGPORT 2	391859	743122	10	750 - 800	122KRKDL
01-0367	LONGPORT W D	LONGPORT 2	391859	743122	10	750 - 800	122KRKDL
01-0582	NJ WATER CO	SHORE-DOBBS AV	391905	743631	20	78 - 99	121CKKD
01-0370	MARGATE CITY WD	MCWD 6	391932	743057	10	748 - 798	122KRKDL
01-0372	MARGATE CITY WD	MCWD 7	391933	743058	5	760 - 800	122KRKDL
01-0375	MARGATE CITY WD	MCWD 4	392003	743011	10	745 - 795	122KRKDL
01-0376	MARGATE CITY WD	MCWD 5	392003	743011	10	741 - 791	122KRKDL
01-0593	VENTNOR CITY WD	VCWD 10	392020	742945	9	740 - 790	122KRKDL
01-0593	VENTNOR CITY WD	VCWD 10	392020	742945	9	740 - 790	122KRKDL
01-0598	VENTNOR CITY WD	VCWD 9	392032	742855	8	740 - 800	122KRKDL
01-0598	VENTNOR CITY WD	VCWD 9	392032	742855	8	740 - 800	122KRKDL
01-0600	VENTNOR CITY WD	VCWD 8	392045	742840	8	750 - 810	122KRKDL
01-0600	VENTNOR CITY WD	VCWD 8	392045	742840	8	750 - 810	122KRKDL
01-0648	BALLY PARK PLACE	BALLY 1	392125	742604	7	775 - 835	122KRKDL
01-0648	BALLY PARK PLACE	BALLY 1	392125	742604	7	775 - 835	122KRKDL
01-0682	RESORTS INTRNTL	1-1980	392135	742518	10	830*	122KRKDL
01-0682	RESORTS INTRNTL	1-1980	392135	742518	10	830*	122KRKDL
01-0695	NJ WATER CO	SHORE-SPRUCE RD	392306	743520	25	135*	121CKKD
01-0039	BRIGANTINE WD	NEW 4	392329	742327	10	733 - 788	122KRKDL
01-0040	BRIGANTINE WD	BAYSHORE 3	392342	742328	10	706 - 766	122KRKDL
01-0041	BRIGANTINE WD	ROOSEVELT 1	392431	742153	9	736 - 827	122KRKDL
01-0568	ATLANTIC CITY WD	ACWD 15	392448	743028	8	583 - 633	122KRKDL
01-0013	NJ WATER CO	SHORE-ABSECON1	392551	743023	30	178 - 205	121CKKD
01-0688	SMITHVILLE WC	1-81	392945	742830	30	180*	121CKKD
01-0117	EGG HARBOR WD	EHWD 5	393206	743836	45	350 - 432	122KRKDL
01-0116	EGG HARBOR WD	EHWD 3	393211	743829	45	342 - 394	122KRKDL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (UMHOS)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
01-0121	SEAVIEW HARBOR WC	1958 WELL	8/24/1984	19.5	165	7.3	22.0	4.8
01-0367	LONGPORT W D	LONGPORT 2	10/ 4/1983	19.0	155	7.8	--	7.2
01-0367	LONGPORT W D	LONGPORT 2	8/24/1984	19.0	156	7.5	25.0	7.4
01-0582	NJ WATER CO	SHORE-DOBBS AV	10/17/1983	15.5	142	5.0	--	21.0
01-0370	MARGATE CITY WD	MCWD 6	10/ 3/1983	18.5	167	7.6	--	7.2
01-0372	MARGATE CITY WD	MCWD 7	8/23/1984	19.0	152	7.4	20.0	4.4
01-0375	MARGATE CITY WD	MCWD 4	10/ 3/1983	18.5	153	7.5	--	6.7
01-0376	MARGATE CITY WD	MCWD 5	8/23/1984	18.5	154	7.4	17.0	8.2
01-0593	VENTNOR CITY WD	VCWD 10	10/ 3/1983	18.5	154	7.8	--	4.5
01-0593	VENTNOR CITY WD	VCWD 10	8/23/1984	18.5	152	7.5	18.0	4.6
01-0598	VENTNOR CITY WD	VCWD 9	10/ 3/1983	18.5	150	7.7	--	5.0
01-0598	VENTNOR CITY WD	VCWD 9	8/23/1984	18.5	151	7.5	21.0	5.2
01-0600	VENTNOR CITY WD	VCWD 8	10/ 3/1983	19.0	138	7.6	--	3.6
01-0600	VENTNOR CITY WD	VCWD 8	8/23/1984	18.5	142	7.4	19.0	3.7
01-0648	BALLY PARK PLACE	BALLY 1	10/ 4/1983	18.5	222	7.8	--	15.0
01-0648	BALLY PARK PLACE	BALLY 1	8/22/1984	19.0	261	7.6	43.0	22.0
01-0682	RESORTS INTRNTL	1-1980	10/ 4/1983	18.5	157	7.8	--	7.9
01-0682	RESORTS INTRNTL	1-1980	8/22/1984	19.0	156	7.2	27.0	7.9
01-0695	NJ WATER CO	SHORE-SPRUCE RD	10/17/1983	13.0	33	5.3	--	5.6
01-0039	BRIGANTINE WD	NEW 4	8/21/1984	18.5	146	7.3	21.0	3.9
01-0040	BRIGANTINE WD	BAYSHORE 3	8/21/1984	18.0	145	7.2	14.0	2.1
01-0041	BRIGANTINE WD	ROOSEVELT 1	8/21/1984	18.5	120	7.2	20.0	3.9
01-0568	ATLANTIC CITY WD	ACWD 15	8/24/1984	17.0	113	6.8	12.0	2.2
01-0013	NJ WATER CO	SHORE-ABSECON1	10/17/1983	13.0	53	4.9	--	6.7
01-0688	SMITHVILLE WC	1-81	10/ 3/1983	12.5	48	4.8	--	6.3
01-0117	EGG HARBOR WD	EHWD 5	8/22/1984	14.0	53	6.0	1.9	2.9
01-0116	EGG HARBOR WD	EHWD 3	8/22/1984	14.5	53	6.0	2.0	3.0

* Total depth of well

Aquifer unit:
121CKKD - Kirkwood- Cohansey aquifer system
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BURLINGTON COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNIT)
05-0570	USGS-MOUNT AT MOUNT OBS	39 41 06	074 36 23	63	25*	121CKKD	84-06-27	12.0	83	6.2
05-0029	USGS-OSWEGO LAKE 1 OBS	39 42 08	074 26 45	92	59*	121CKKD	84-09-07	12.5	30	6.7
05-0408	USGS-ATSION 2 OBS	39 44 22	074 43 09	48	63- 65	121CKKD	84-09-06	13.0	124	6.6
05-0409	USGS-ATSION 3 OBS	39 44 22	074 43 09	47	14- 17	121CKKD	84-09-06	16.0	50	4.7
05-0628	USGS-PENN ST FOR OBS-SHA	39 44 52	074 28 19	79	12*	121CKKD	84-06-13	22.0	55	7.0
05-0684	USGS-BUTLER PLACE 2 OBS	39 51 22	074 30 17	141	160-170	121CKKD	84-06-19	12.5	24	4.7

LOCAL IDENTIFIER	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
USGS-MOUNT AT MOUNT OBS	36	14	.35	1.0	.30	32	--	28	8.8	2.5
USGS-OSWEGO LAKE 1 OBS	3	.50	.39	2.2	.20	--	--	10	.3	3.5
USGS-ATSION 2 OBS	3	.35	.40	1.7	.30	--	--	60	29	3.4
USGS-ATSION 3 OBS	7	2.1	.53	2.0	.40	--	--	1	8.8	9.1
USGS-PENN ST FOR OBS-SHA	13	3.4	1.2	2.3	.60	15	--	12	3.6	3.6
USGS-BUTLER PLACE 2 OBS	2	.41	.30	1.6	.20	--	--	<1	10	<.10

LOCAL IDENTIFIER	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
USGS-MOUNT AT MOUNT OBS	<.10	4.1	69	.070	.37	.070	.20	.57	<.010	20
USGS-OSWEGO LAKE 1 OBS	<.10	4.0	20	<.010	<.10	.040	.20	--	<.010	<10
USGS-ATSION 2 OBS	<.10	7.8	147	<.010	<.10	.080	.40	--	<.010	100
USGS-ATSION 3 OBS	.20	5.6	--	<.010	<.10	.020	.30	--	<.010	730
USGS-PENN ST FOR OBS-SHA	.10	1.5	44	<.010	<.10	.040	.40	--	<.010	<10
USGS-BUTLER PLACE 2 OBS	<.10	5.7	26	<.010	<.10	<.010	.20	--	<.010	90

LOCAL IDENTIFIER	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
USGS-MOUNT AT MOUNT OBS	<1	3	1	92	15	3	3	<.1
USGS-OSWEGO LAKE 1 OBS	<1	2	<1	<1	28	3	9	<.1
USGS-ATSION 2 OBS	<1	1	<1	<1	34000	<1	3	<.1
USGS-ATSION 3 OBS	<1	<1	<1	1	59	8	71	<.1
USGS-PENN ST FOR OBS-SHA	<1	1	<1	<1	5500	11	210	<.1
USGS-BUTLER PLACE 2 OBS	<1	<1	<1	28	130	3	4	<.1

LOCAL IDENTIFIER	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-MOUNT AT MOUNT OBS	150	1.5	<1
USGS-OSWEGO LAKE 1 OBS	4400	.10	<1
USGS-ATSION 2 OBS	1200	1.6	<1
USGS-ATSION 3 OBS	300	.90	<1
USGS-PENN ST FOR OBS-SHA	54	2.0	1
USGS-BUTLER PLACE 2 OBS	11	.30	<1

* Total depth of well

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAPE MAY COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNIT)
09-0099	USGS-CAPE MAY CNTY PK T8	39 06 11	074 48 38	11	215-230	121CNSY	84-09-25	14.0	167	9.1

LOCAL IDENTIFIER	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
USGS-CAPE MAY CNTY PK T8	58	20	1.9	8.6	2.3	78	5	68	14	1.5

LOCAL IDENTIFIER	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
USGS-CAPE MAY CNTY PK T8	.10	21	131	<.010	<.10	.170	.40	--	.240	--

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
USGS-CAPE MAY CNTY PK T8	<1	<1	--	<1	97	3	11	.1

LOCAL IDENTIFIER	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-CAPE MAY CNTY PK T8	<3	1.0	1

Aquifer unit:

121CNSY - Cohansey Sand

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAPE MAY COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
09-0017	US COAST GUARD	USCG 1	385651	745310	11	292 - 322	121CNSY
09-0018	US COAST GUARD	USCG 2	385652	745327	11	295 - 325	121CNSY
09-0044	SNOW CANNING	SNOW 1	385725	745257	10	278*	121CNSY
09-0154	WILDWOOD WD	WWD PINE 2	385932	744851	10	304 - 354	121CNSY
09-0132	STONE HARBOR WD	SHWD 4	390301	744545	10	830 - 880	122KRKDL
09-0132	STONE HARBOR WD	SHWD 4	390301	744545	10	830 - 880	122KRKDL
09-0173	STONE HARBOR WD	SHWD 6-82	390314	744532	10	822 - 862	122KRKDL
09-0135	STONE HARBOR WD	SHWD 3	390323	744525	9	837 - 877	122KRKDL
09-0135	STONE HARBOR WD	SHWD 3	390323	744525	9	837 - 877	122KRKDL
09-0166	STONE HARBOR WD	SHWD 5	390351	744504	7	820 - 860	122KRKDL
09-0166	STONE HARBOR WD	SHWD 5	390351	744504	7	820 - 860	122KRKDL
09-0002	AVALON WD	AVALON WD 7-71	390420	744435	5	821 - 861	122KRKDL
09-0002	AVALON WD	AVALON WD 7-71	390420	744435	5	821 - 861	122KRKDL
09-0092	NJ WATER CO	NEPTUNUS 7	390523	744856	17	631 - 791	122KRKDL
09-0004	AVALON WD	AVALON WD 6-68	390528	744338	10	880 - 920	122KRKDL
09-0005	AVALON WD	AVALON WD 8-76	390545	744326	8	784 - 839	122KRKDL
09-0008	AVALON WD	AVALON WD 3-30	390621	744248	10	845 - 925	122KRKDL
09-0008	AVALON WD	AVALON WD 3-30	390621	744248	10	845 - 925	122KRKDL
09-0161	E SHORE CONVALESCENT	1	390704	744750	16	639 - 654	122KRKDL
09-0126	SEA ISLE CITY WD	SICWD 5	390747	744241	7	735 - 802	122KRKDL
09-0126	SEA ISLE CITY WD	SICWD 5	390747	744241	7	735 - 802	122KRKDL
09-0127	SEA ISLE CITY WD	SICWD 4	390847	744200	7	742 - 830	122KRKDL
09-0129	SEA ISLE CITY WD	SICWD 2	390926	744131	7	744 - 861	122KRKDL
09-0129	SEA ISLE CITY WD	SICWD 2	390926	744131	7	744 - 861	122KRKDL
09-0136	ARAMINGO WC	AWC 1	391152	743927	7	802 - 834	122KRKDL
09-0136	ARAMINGO WC	AWC 1	391152	743927	7	802 - 834	122KRKDL
09-0106	NJ WATER CO	SHORE DIV 7	391343	743755	8	760 - 810	122KRKDL
09-0108	NJ WATER CO	SHORE DIV 14	391500	743645	7	774 - 840	122KRKDL
09-0108	NJ WATER CO	SHORE DIV 14	391500	743645	7	774 - 840	122KRKDL
09-0109	NJ WATER CO	SHORE DIV 9	391535	743611	8	749 - 809	122KRKDL
09-0110	NJ WATER CO	SHORE DIV 12	391604	743539	7	814*	122KRKDL
09-0116	NJ WATER CO	SHORE DIV 8	391638	743451	7	760 - 810	122KRKDL
09-0144	ATL CITY ELEC	ACEC 5	391703	743756	9	650 - 690	122KRKDL
09-0148	ATL CITY ELEC	ACEC 3-LAYNE 4	391707	743756	9	645 - 675	122KRKDL
09-0124	NJ WATER CO	SHORE DIV 13	391712	743340	8	757 - 840	122KRKDL
09-0124	NJ WATER CO	SHORE DIV 13	391712	743340	8	757 - 840	122KRKDL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	SODIUM DISSOLVED (MG/L AS NA)	CHLORIDE DISSOLVED (MG/L AS CL)
09-0017	US COAST GUARD	USCG 1	10/14/1983	15.5	365	7.8	--	40.0
09-0018	US COAST GUARD	USCG 2	10/14/1983	15.5	332	7.8	--	30.0
09-0044	SNOW CANNING	SNOW 1	10/14/1983	15.5	288	7.6	--	22.0
09-0154	WILDWOOD WD	WWD PINE 2	10/13/1983	15.5	530	7.6	--	93.0
09-0132	STONE HARBOR WD	SHWD 4	10/13/1983	20.0	350	8.8	--	32.0
09-0132	STONE HARBOR WD	SHWD 4	8/29/1984	20.0	352	8.8	62.0	34.0
09-0173	STONE HARBOR WD	SHWD 6-82	8/29/1984	19.0	354	8.8	56.0	22.0
09-0135	STONE HARBOR WD	SHWD 3	10/13/1983	20.5	315	8.8	--	22.0
09-0135	STONE HARBOR WD	SHWD 3	8/29/1984	20.0	310	8.8	55.0	22.0
09-0166	STONE HARBOR WD	SHWD 5	10/13/1983	20.0	272	8.7	--	14.0
09-0166	STONE HARBOR WD	SHWD 5	8/29/1984	19.5	272	8.8	49.0	15.0
09-0002	AVALON WD	AVALON WD 7-71	10/13/1983	20.5	255	8.6	--	13.0
09-0002	AVALON WD	AVALON WD 7-71	8/29/1984	19.5	257	8.7	42.0	14.0
09-0092	NJ WATER CO	NEPTUNUS 7	8/30/1984	19.0	339	8.6	48.0	37.0
09-0004	AVALON WD	AVALON WD 6-68	8/29/1984	20.0	380	8.7	61.0	50.0
09-0005	AVALON WD	AVALON WD 8-76	10/13/1983	20.0	240	8.5	--	11.0
09-0008	AVALON WD	AVALON WD 3-30	10/13/1983	20.0	340	8.4	--	38.0
09-0008	AVALON WD	AVALON WD 3-30	8/29/1984	20.0	341	8.6	54.0	40.0
09-0161	E SHORE CONVALESCENT	1	8/30/1984	17.0	450	8.2	48.0	53.0
09-0126	SEA ISLE CITY WD	SICWD 5	10/13/1983	19.5	237	8.5	--	11.0
09-0126	SEA ISLE CITY WD	SICWD 5	8/28/1984	19.5	241	8.5	29.0	12.0
09-0127	SEA ISLE CITY WD	SICWD 4	8/28/1984	19.0	253	8.5	33.0	15.0
09-0129	SEA ISLE CITY WD	SICWD 2	10/13/1983	19.5	235	8.4	--	11.0
09-0129	SEA ISLE CITY WD	SICWD 2	8/28/1984	19.5	238	8.1	32.0	12.0
09-0136	ARAMINGO WC	AWC 1	10/13/1983	--	217	8.4	--	12.0
09-0136	ARAMINGO WC	AWC 1	8/31/1984	19.0	225	8.1	33.0	14.0
09-0106	NJ WATER CO	SHORE DIV 7	8/30/1984	19.5	209	8.0	28.0	12.0
09-0108	NJ WATER CO	SHORE DIV 14	10/17/1983	20.0	209	7.8	--	10.0
09-0108	NJ WATER CO	SHORE DIV 14	8/30/1984	19.5	212	7.9	29.0	11.0
09-0109	NJ WATER CO	SHORE DIV 9	8/30/1984	19.0	200	7.9	26.0	8.3
09-0110	NJ WATER CO	SHORE DIV 12	8/30/1984	19.0	197	7.8	27.0	7.7
09-0116	NJ WATER CO	SHORE DIV 8	8/30/1984	19.0	191	7.8	26.0	6.9
09-0144	ATL CITY ELEC	ACEC 5	8/28/1984	18.5	154	7.4	21.0	5.7
09-0148	ATL CITY ELEC	ACEC 3-LAYNE 4	8/28/1984	18.5	184	7.9	19.0	4.8
09-0124	NJ WATER CO	SHORE DIV 13	10/17/1983	20.0	203	7.8	--	9.6
09-0124	NJ WATER CO	SHORE DIV 13	8/30/1984	19.0	200	7.8	29.0	10.0

* Total depth of well

Aquifer unit:

121CNSY - Cohansey Sand
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MIDDLESEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
23-0205	OLD BRIDGE MUA	LAWRENCE HAR 8	402700	741459	60	193 - 213	211ODBG
23-0206	OLD BRIDGE MUA	LAWRENCE HAR 9	402700	741459	60	360 - 395	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	CHLORIDE DIS-SOLVED (MG/L AS CL)
23-0205	OLD BRIDGE MUA	LAWRENCE HAR 8	12/ 2/1983	12.5	61	5.2	7.8
23-0206	OLD BRIDGE MUA	LAWRENCE HAR 9	12/ 2/1983	13.0	63	6.0	2.2

Aquifer unit:

211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRMG - Farrington aquifer, Potomac-Raritan-Magothy aquifer systsm

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MONMOUTH COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
25-0030	BRIELLE WD	BWD 2	400645	740345	33	690 - 750	211EGLS
25-0233	MANASQUAN WD	MWD 6	400710	740329	10	180*	121CKKD
25-0234	MANASQUAN WD	MWD 3	400712	740328	15	118*	121CKKD
25-0235	MANASQUAN WD	MWD 2R	400712	740328	21	103 - 118	121CKKD
25-0552	MANASQUAN WD	MWD 7-83	400712	740328	20	94 - 112	121CKKD
25-0237	MANASQUAN WD	MWD 5	400714	740329	15	97 - 117	121CKKD
25-0464	SEA GIRT WD	SGWD 6	400801	740231	21	100 - 130	121CKKD
25-0374	SEA GIRT WD	SGWD 5	400804	740227	20	660 - 710	211EGLS
25-0383	SPRING LAKE WD	SLWD 1	400849	740207	15	631 - 711	211EGLS
25-0386	SPRING LAKE WD	SLWD 4	400952	740149	15	600 - 670	211EGLS
25-0387	SPRING LK HT WD	SPRING LK HGT1	400857	740309	60	570 - 600	211MLRW
25-0391	SPRING LK HT WD	SPRING LK HGT4	400928	740211	20	485 - 560	211MLRW
25-0023	BELMAR BORO WD	BWD 13	401040	740146	20	555 - 605	211EGLS
25-0026	BELMAR BORO WD	BWD 4 ELEC(11)	401102	740045	15	601 - 671	211EGLS
25-0014	AVON WATER DEPT	AWD 1	401138	740125	28	424 - 504	211MLRW
25-0001	ALLENHURST WD	AWD 4	401401	740025	17	525 - 565	211EGLS
25-0117	HIGHLANDS WD	HWD 4	402401	735920	20	630 - 680	211ODBG
25-0496	ATLAN HIGH WD	AHWD 4	402441	740233	15	510 - 543	211ODBG
25-0284	MATAWAN BORO WD	MATAWAN BORO 3	402515	741450	90	231 - 271	211ODBG
25-0111	W KEANSBURG WC	W KEANSBURG 1	402532	740932	59	326 - 366	211ODBG
25-0112	W KEANSBURG WC	W KEANSBURG 2	402537	740933	44	312 - 352	211ODBG
25-0197	KEYPORT BORO WD	KEYPORT 7	402535	741214	35	304 - 354	211ODBG
25-0297	ABERDEEN TWP WD	ABERDEEN TWP 1	402603	741422	80	447 - 487	211FRNG
25-0294	MATAWAN BORO WD	MATAWAN BORO 1	402428	741345	20	222 - 252	211ODBG
25-0190	KEANSBURG MUA	KMUA 4	402621	740739	10	280 - 340	211ODBG
25-0190	KEANSBURG MUA	KMUA 4	402621	740739	10	280 - 340	211ODBG
25-0195	KEANSBURG MUA	KMUA 5A	402621	740743	10	290 - 350	211ODBG
25-0191	KEANSBURG MUA	KMUA 6	402620	740741	10	302 - 362	211ODBG
25-0191	KEANSBURG MUA	KMUA 6	402620	740741	10	302 - 362	211ODBG
25-0196	KEANSBURG MUA	KMUA 3	402628	740744	12	308 - 348	211ODBG
25-0453	UNION BEACH WD	UBWD 3 1977	402632	741051	10	480 - 532	211FRNG
25-0420	UNION BEACH WD	UBWD 2 1969	402634	741051	10	262 - 289	211ODBG
25-0456	INT FLAVOR FRAG	IFF-3R	402640	740904	10	277 - 316	211ODBG
25-0514	INT FLAVOR FRAG	IFF2-83	402641	740911	10	266 - 312	211ODBG
25-0423	INT FLAVOR FRAG	IFF1	402641	740919	10	298 - 328	211ODBG
25-0320	NATL PARK SERVICE	FT HANCOCK 5A	402705	735959	14	838 - 878	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (UMHOS)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
25-0030	BRIELLE WD	BWD 2	9/13/1984	19.5	187	8.1	3.9	1.2
25-0233	MANASQUAN WD	MWD 6	9/19/1984	--	--	5.2	4.5	8.8
25-0234	MANASQUAN WD	MWD 3	9/19/1984	13.5	95	4.7	7.6	14.0
25-0235	MANASQUAN WD	MWD 2R	9/19/1984	13.5	97	5.0	7.6	13.0
25-0552	MANASQUAN WD	MWD 7-83	9/19/1984	13.0	68	4.9	6.2	10.0
25-0237	MANASQUAN WD	MWD 5	9/19/1984	13.0	73	5.7	5.9	12.0
25-0464	SEA GIRT WD	SGWD 6	9/14/1984	13.5	84	5.9	5.9	12.0
25-0374	SEA GIRT WD	SGWD 5	9/14/1984	19.0	185	8.0	3.5	0.8
25-0383	SPRING LAKE WD	SLWD 1	9/13/1984	19.0	178	7.9	3.2	1.0
25-0386	SPRING LAKE WD	SLWD 4	9/13/1984	19.0	178	7.9	2.9	1.1
25-0387	SPRING LK HT WD	SPRING LK HGT1	9/14/1984	17.5	192	8.3	3.9	1.2
25-0391	SPRING LK HT WD	SPRING LK HGT4	9/14/1984	--	177	8.2	2.9	2.4
25-0023	BELMAR BORO WD	BWD 13	9/13/1984	19.0	184	7.8	2.6	0.8
25-0026	BELMAR BORO WD	BWD 4 ELEC(11)	9/13/1984	19.5	183	7.8	2.8	1.1
25-0014	AVON WATER DEPT	AWD 1	9/19/1984	17.0	235	--	3.3	2.0
25-0001	ALLENHURST WD	AWD 4	9/19/1984	18.0	202	--	2.9	1.7
25-0117	HIGHLANDS WD	HWD 4	12/ 1/1983	--	102	6.4	--	1.2
25-0496	ATLAN HIGH WD	AHWD 4	12/ 1/1983	16.0	100	6.5	--	1.2
25-0284	MATAWAN BORO WD	MATAWAN BORO 3	10/13/1983	12.5	72	5.7	--	3.5
25-0111	W KEANSBURG WC	W KEANSBURG 1	10/12/1983	13.5	68	6.0	--	1.5
25-0112	W KEANSBURG WC	W KEANSBURG 2	10/12/1983	13.5	71	6.2	--	1.5
25-0197	KEYPORT BORO WD	KEYPORT 7	10/12/1983	13.5	73	6.0	--	4.5
25-0297	ABERDEEN TWP WD	ABERDEEN TWP 1	10/13/1983	14.0	62	6.2	--	2.0
25-0294	MATAWAN BORO WD	MATAWAN BORO 1	10/13/1983	13.0	95	5.8	--	1.8
25-0190	KEANSBURG MUA	KMUA 4	10/12/1983	13.5	495	6.1	--	120.0
25-0190	KEANSBURG MUA	KMUA 4	3/14/1984	13.5	460	--	--	120.0
25-0195	KEANSBURG MUA	KMUA 5A	10/12/1983	14.0	75	6.2	--	2.1
25-0191	KEANSBURG MUA	KMUA 6	10/12/1983	13.5	172	6.2	--	26.0
25-0191	KEANSBURG MUA	KMUA 6	3/14/1984	13.5	222	--	--	43.0
25-0196	KEANSBURG MUA	KMUA 3	10/12/1983	13.5	84	6.5	--	4.1
25-0453	UNION BEACH WD	UBWD 3 1977	10/13/1983	14.5	82	6.4	--	4.5
25-0420	UNION BEACH WD	UBWD 2 1969	10/13/1983	13.5	5,500	--	--	1,700.0
25-0456	INT FLAVOR FRAG	IFF3R	10/13/1983	--	52	--	--	1.5
25-0514	INT FLAVOR FRAG	IFF2-83	10/13/1983	14.0	63	6.1	--	1.5
25-0423	INT FLAVOR FRAG	IFF1	10/13/1983	14.0	65	6.4	--	1.6
25-0320	NATL PARK SERVICE	FT HANCOCK 5A	12/ 1/1983	19.0	117	6.7	--	5.3

* Total depth of well

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
211MLRW - Wenonah-Mount Laurel aquifer
211EGLS - Englishtown aquifer
211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

OCEAN COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNIT)
29-0791	STAFFORD FORGE F&WL 1-83	39 41 11	074 21 41	50	55- 65	121CKKD	84-09-11	13.0	28	4.8
29-0513	USGS-GARDEN ST PKWY OBS1	39 47 44	074 14 18	44	18- 21	121CKKD	84-09-20	15.5	49	6.2
29-0789	CEDAR BRG FIRETOWER 1-83	39 49 49	074 20 29	200	59- 69	121CKKD	84-06-14	12.5	19	5.3
29-0790	GREENWOOD ST FOREST 1-83	39 51 07	074 22 55	155	41- 51	121CKKD	84-06-14	14.5	35	5.2
29-0141	USGS-COLLIERS MILLS TW 4	40 04 14	074 27 02	135	46- 71	121CKKD	84-07-10	16.0	78	6.6

LOCAL IDENTIFIER	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
STAFFORD FORGE F&WL 1-83	--	.41	.29	2.9	.30	1	--	1	2.2	4.5
USGS-GARDEN ST PKWY OBS1	6	1.0	.74	4.8	.40	10	--	12	1.1	9.9
CEDAR BRG FIRETOWER 1-83	2	.13	.33	2.2	.20	--	--	3	.5	3.8
GREENWOOD ST FOREST 1-83	6	.92	1.0	2.9	.60	--	--	3	2.1	4.7
USGS-COLLIERS MILLS TW 4	18	5.7	.85	2.6	2.0	12	--	12	13	2.6

LOCAL IDENTIFIER	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
STAFFORD FORGE F&WL 1-83	<.10	5.7	18	<.010	<.10	2.10	2.1	--	<.010	<10
USGS-GARDEN ST PKWY OBS1	<.10	5.9	8	<.010	<.10	.260	.50	--	<.010	<10
CEDAR BRG FIRETOWER 1-83	<.10	4.7	21	<.010	<.10	<.010	.60	--	<.010	30
GREENWOOD ST FOREST 1-83	<.10	4.5	24	<.010	.65	<.010	.30	--	<.010	50
USGS-COLLIERS MILLS TW 4	.30	18	58	.020	<.10	.040	.40	--	.330	70

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
STAFFORD FORGE F&WL 1-83	<1	<1	<1	<1	39	1	7	<.1
USGS-GARDEN ST PKWY OBS1	<1	<1	<1	1	1800	7	21	<.1
CEDAR BRG FIRETOWER 1-83	1	<1	<1	<1	10	4	4	.1
GREENWOOD ST FOREST 1-83	<1	<1	<1	<1	10	7	22	<.1
USGS-COLLIERS MILLS TW 4	1	<1	<1	2	2100	1	49	<.1

LOCAL IDENTIFIER	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
STAFFORD FORGE F&WL 1-83	16	.20	<1
USGS-GARDEN ST PKWY OBS1	860	1.3	3
CEDAR BRG FIRETOWER 1-83	4	.40	<1
GREENWOOD ST FOREST 1-83	16	.60	1
USGS-COLLIERS MILLS TW 4	29	2.1	<1

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system

OCEAN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT
29-0462	LITTLE EGG HMUA	MYSTIC 3	393253	742308	8	509 - 553	122KRKDL
29-0009	BEACH HAVEN WD	BHWD 8	393346	741430	5	572 - 656	122KRKDL
29-0012	BEACH HAVEN WD	BHWD 7	393346	741434	5	572 - 665	122KRKDL
29-0464	LITTLE EGG HMUA	MYSTIC 2	393428	742202	25	485 - 542	122KRKDL
29-0457	LONG BEACH WC	TERRACE 3	393510	741327	8	465 - 650	122KRKDL
29-0459	LONG BEACH WC	TERRACE 2	393510	741330	5	523 - 577	122KRKDL
29-0597	TUCKERTON MUA	TMUA 5	393610	742021	25	400 - 500	122KRKDL
29-0460	LONG BEACH WC	BRANT BEACH 2	393724	741151	6	530 - 580	122KRKDL
29-0544	SHIP BOTTOM WD	SBWD 4	393839	741052	5	536 - 578	122KRKDL
29-0549	SHIP BOTTOM WD	SBWD 5	393848	741053	5	527 - 588	122KRKDL
29-0559	SURF CITY WD	SCWD 3	393912	741022	5	516 - 557	121KRKDL
29-0560	SURF CITY WD	SCWD 4	393938	741006	5	514 - 554	122KRKDL
29-0561	SURF CITY WD	SCWD 5	393948	740954	10	521 - 562	122KRKDL
29-0557	STAFFORD TWP MUA	STAFFORD 3	394042	741411	8	385 - 428	122KRKDL
29-0111	HARVEY CEDARS WD	HCWD 4	394134	740832	9	465 - 500	122KRKDL
29-0112	HARVEY CEDARS WD	HCWD 3	394218	740808	5	451 - 493	122KRKDL
29-0567	BARNEGAT WC	BARNEGAT 4	394520	741317	28	141 - 163	121CKKD
29-0594	OCEAN TWP MUA	4-78	394622	741229	15	125 - 150	121CKKD
29-0512	OCEAN TWP MUA	1-60	394744	741129	5	140 - 160	121CKKD
29-0585	STATE OF NJ	DOE-FORKED RIVER	395028	741044	15	412 - 422	124PNPN
29-0613	BERKELEY WC	PINEWALL	395248	741011	45	200*	121CKKD
29-0022	SHORE WATER CO	SWC 1	395422	740458	7	175 - 200	121CKKD
29-0023	SHORE WATER CO	SWC 2	395423	740458	7	493 - 530	124MNSQ
29-0697	ARLINGTON BEACH WC	ABWC 1	395443	740500	10	76 - 86	121CKKD
29-0541	SEASIDE PARK WD	SPWD 2	395451	740455	10	477 - 517	124MNSQ
29-0612	BERKELEY WC	BAYVILLE	395454	740906	20	90*	121CKKD
29-0508	OCEAN GATE WD	OGWD 3	395528	740826	10	133 - 153	121CKKD
29-0582	SEASIDE PARK WD	6-77	395547	740434	12	435 - 485	124MNSQ
29-0515	PINE BEACH WATER UTL	PBWU 1	395558	741013	30	135 - 197	121CKKD
29-0538	SEASIDE HGTS WD	SHWD 1R	395636	740439	5	144 - 175	121CKKD
29-0617	SEASIDE HGTS WD	SHWD 5-78	395652	740442	5	175*	121CKKD
29-0058	TOMS RIVER WC	TRWC 21	395715	741231	10	46 - 56	121CKKD
29-0453	LAVALLETTE WD	LWD 4	395808	740416	5	1358 -1515	211MRPA
29-0454	LAVALLETTE WD	LWD 2	395808	740421	5	1009 -1136	211EGLS
29-0100	NJWC OCEAN CO DIV	NORMANDY 3	395956	740344	8	1428 -1479	211MRPA
29-0504	NJWC OCEAN CO DIV	MANTOLOKING 7	400210	740310	5	1263 -1368	211MRPA
29-0006	NJWC OCEAN CO DIV	BAY HEAD 6	400405	740244	10	778 - 818	211EGLS
29-0043	BRICK TWP MUA	FP 7	400430	740829	20	40 - 60	121CKKD
29-0044	BRICK TWP MUA	FP 8	400430	740829	20	40 - 60	121CKKD
29-0530	PT PLEASANT WD	PPWD 6	400454	740413	20	730 - 790	211EGLS
29-0531	PT PLEASANT WD	PPWD 5	400454	740414	18	1256 -1342	211MRPA
29-0579	PT PLEAS BCH WD	PPBWD 11	400512	740251	5	130 - 142	121CKKD
29-0807	PT PLEAS BCH WD	PPBWD 12	400536	740251	5	108 - 132	121CKKD
29-0523	PT PLEAS BCH WD	PPBWD 10	400551	740243	5	87 - 130	121CKKD

* Total depth of well

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
124PNPN - Piney Point aquifer
124MNSQ - Manasquan Formation
211EGLS - Englishtown aquifer
211MRPA - Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

OCEAN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
29-0462	LITTLE EGG HMUA	MYSTIC 3	8/17/1984	14.5	60	6.4	4.6	3.0
29-0009	BEACH HAVEN WD	BHWD 8	8/16/1984	16.0	64	6.4	4.9	3.3
29-0012	BEACH HAVEN WD	BHWD 7	8/15/1984	16.0	63	6.4	4.5	3.2
29-0464	LITTLE EGG HMUA	MYSTIC 2	8/17/1984	14.0	67	6.6	3.9	3.1
29-0457	LONG BEACH WC	TERRACE 3	8/15/1984	15.5	59	6.2	3.7	3.3
29-0459	LONG BEACH WC	TERRACE 2	8/15/1984	15.5	54	6.1	3.0	3.4
29-0597	TUCKERTON MUA	TMUA 5	8/17/1984	15.0	62	6.1	3.1	6.3
29-0460	LONG BEACH WC	BRANT BEACH 2	8/15/1984	16.0	65	6.3	3.8	4.6
29-0544	SHIP BOTTOM WD	SBWD 4	8/14/1984	15.5	59	6.3	3.9	3.4
29-0549	SHIP BOTTOM WD	SBWD 5	8/14/1984	15.0	60	6.3	3.7	3.4
29-0559	SURF CITY WD	SCWD 3	8/13/1984	15.0	59	6.2	4.1	3.2
29-0560	SURF CITY WD	SCWD 4	8/13/1984	15.0	60	6.2	4.3	3.2
29-0561	SURF CITY WD	SCWD 5	8/13/1984	16.5	63	6.4	4.7	3.3
29-0557	STAFFORD TWP MUA	STAFFORD 3	8/13/1984	14.0	50	6.7	2.1	3.8
29-0111	HARVEY CEDARS WD	HCWD 4	8/14/1984	15.5	69	6.8	4.2	3.1
29-0112	HARVEY CEDARS WD	HCWD 3	8/14/1984	15.5	76	6.8	4.6	3.5
29-0567	BARNEGAT WC	BARNEGAT 4	8/30/1984	12.5	52	4.6	3.4	6.3
29-0594	OCEAN TWP MUA	4-78	9/18/1984	--	65	--	3.4	6.6
29-0512	OCEAN TWP MUA	1-60	9/18/1984	13.0	56	4.5	2.6	4.7
29-0585	STATE OF NJ	DOE-FORKED RIVER	2/29/1984	13.0	340	8.3	59.0	2.1
29-0613	BERKELEY WC	PINEWALL	8/30/1984	12.0	52	5.2	3.8	5.3
29-0022	SHORE WATER CO	SWC 1	8/28/1984	13.5	60	5.8	6.0	5.1
29-0023	SHORE WATER CO	SWC 2	8/28/1984	16.0	295	8.8	62.0	1.3
29-0697	ARLINGTON BEACH WC	ABWC 1	8/28/1984	13.5	96	6.7	4.3	7.1
29-0541	SEASIDE PARK WD	SPWD 2	8/28/1984	15.0	202	8.0	36.0	1.2
29-0612	BERKELEY WC	BAYVILLE	8/30/1984	--	63	4.8	4.0	6.1
29-0508	OCEAN GATE WD	OGWD 3	8/30/1984	13.0	51	5.4	3.4	6.3
29-0582	SEASIDE PARK WD	6-77	8/28/1984	15.5	256	8.8	51.0	1.5
29-0515	PINE BEACH WATER UTL	PBWU 1	8/30/1984	12.0	67	4.5	4.2	7.6
29-0538	SEASIDE HGTS WD	SHWD 1R	8/28/1984	15.0	755	6.2	92.0	200.0
29-0617	SEASIDE HGTS WD	SHWD 5-78	8/28/1984	14.0	218	5.8	23.0	45.0
29-0058	TOMS RIVER WC	TRWC 21	9/18/1984	13.0	149	5.7	12.0	23.0
29-0453	LAVALLETTE WD	LWD 4	8/29/1984	23.5	187	7.8	26.0	1.2
29-0454	LAVALLETTE WD	LWD 2	8/29/1984	20.0	430	8.6	100.0	2.8
29-0100	NJWC OCEAN CO DIV	NORMANDY 3	8/29/1984	24.0	171	7.4	12.0	1.2
29-0504	NJWC OCEAN CO DIV	MANTOLOKING 7	8/29/1984	24.5	165	7.4	9.3	1.1
29-0006	NJWC OCEAN CO DIV	BAY HEAD 6	8/29/1984	20.5	217	8.1	12.0	1.0
29-0043	BRICK TWP MUA	FP 7	9/18/1984	14.5	104	5.2	8.9	14.0
29-0044	BRICK TWP MUA	FP 8	9/18/1984	14.5	111	5.0	8.2	14.0
29-0530	PT PLEASANT WD	PPWD 6	8/29/1984	20.0	196	8.1	6.1	1.0
29-0531	PT PLEASANT WD	PPWD 5	8/29/1984	24.5	144	7.0	3.2	1.9
29-0579	PT PLEAS BCH WD	PPBWD 11	8/29/1984	13.5	475	6.6	25.0	13.0
29-0807	PT PLEAS BCH WD	PPBWD 12	8/29/1984	14.0	420	7.2	26.0	94.0
29-0523	PT PLEAS BCH WD	PPBWD 10	8/29/1984	13.5	950	6.5	66.0	410.0

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons